Lesson

10

Motivating Coherence

A problem well-put is half solved.
—JOHN DEWEY

Looking back, I think it was more difficult to see what the problems were than to solve them.
—CHARLES DARWIN

The formulation of a problem is often more essential than its solution, which may be merely a matter of mathematical or experimental skill. To raise new questions, new possibilities, to regard old questions from a new angle, requires creative imagination and marks real advance in science.
—ALBERT EINSTEIN

The uncreative mind can spot wrong answers, but it takes a creative mind to spot wrong questions.
—ANTONY JAY

UNDERSTANDING MOTIVES

If we are deeply interested in a topic, we will read anything about it we can get our hands on. We read even more attentively, however, when we read not just *about* an interesting topic, but about a *problem* that is important to us—from finding a good job to understanding the origins of life. When we are motivated to read attentively, not only do we read with greater understanding, but what we read seems more clearly written because we engage it so intently.

So from the moment you begin to plan a writing project, don't imagine your task as just writing *about* a topic, passing on information that happens to interest *you*. See yourself as posing a problem that *your readers* want to see solved.

The Importance of Introductions

Often, however, the problem you write about might not be one that your readers care about, or even know of. If so, you face a challenge: not only must you must overcome their inclination to ask *So what?*, but you get just one shot at answering it, in the introduction to your document. That's where you must motivate readers to see your problem as theirs.

For example, read this introduction (all these examples are much shorter than typical ones).

> When college students go out to relax on the weekend, many now "binge," downing several alcoholic drinks quickly until they are drunk or even pass out. It is a behavior that has been spreading through colleges and universities across the country, especially at large state universities. It once was done mostly by men, but now even women binge. It has drawn the attention of parents, college administrators, and researchers.

That introduction offers only a topic; it does not motivate us to care about it. Unless a reader is already interested in the issue, she may shrug and ask *So what? Who cares that college students drink a lot?*

Contrast that introduction with this one: it tells us why bingeing is not just a topic but a problem worth our attention:

> Alcohol has been a big part of college life for hundreds of years. From football weekends to fraternity parties, college students drink and often drink hard. But a new kind of drinking known as "binge" drinking is spreading through our colleges and universities. Bingers drink quickly not to be sociable but to get drunk or even to pass out. Bingeing is far from the harmless fun long associated with college life.

> In the last six months, it has been cited in at least six deaths, many injuries, and considerable destruction of property. It crosses the line from fun to reckless behavior that kills and injures not just drinkers but those around them. We may not be able to stop bingeing entirely, but we must try to control its worst costs by educating students in how to manage its risks.

As short as that introduction is, it has three parts that appear in most introductions. Each part has a role in motivating a reader to read on. The parts are these:

Shared Context—Problem—Solution.

> Alcohol has been a big part of college life . . . drink hard. shared context
> But a new kind of drinking known as "binge" drinking is spreading . . . kills and injures not just drinkers but those around them. problem
> We may not be able to stop bingeing entirely, but we must try to control its worst costs by educating students in how to manage its risks. solution

Part 1: Establishing a Shared Context Not all pieces of writing open with a shared context, but most do. We see a shared context in the second introduction above:

> Alcohol has been a big part of college life for hundreds of years. From football weekends to fraternity parties, college students drink and often drink hard. shared context But a new kind of drinking known as "binge" . . .

That shared context offers historical background, but it might have been a recent event, a common belief, or anything else that reminds readers of what they know, have experienced, or readily accept.

> **Event:** A recent State U survey showed that 80% of first-year students engaged in underage drinking in their first month on campus, a fact that should surprise no one. shared context But what is worrisome is the spread among first-year students of a new kind of drinking known as "binge" . . .
>
> **Belief:** Most students believe that college is a safe place to drink for those who live on or near campus. And for the most part they are right, shared context But for those students who get caught up in the new trend of "binge" drinking, . . .

These forms of shared context play a special role in motivating readers to read on: I wanted you to accept that context as a seemingly unproblematic base for thinking about binge drinking *just so that I could then challenge it.* I set you up so that I could say, in effect, *You may think you know the whole story,* ***but*** *you don't.* That *but* signals the coming qualification:

> . . . drink and often drink hard. shared context **BUT a new kind of drinking known as "binge" drinking is spreading . . .**

In other words, college drinking seems unproblematic, *but it turns out not to be.* I wanted that small surprise to motivate you to go on reading.

No opening move is more common among experienced writers: open with a seeming truth, then qualify or even reject it. You can find countless examples of it in articles in newspapers, magazines, and especially professional journals. This opening context can be a sentence or two, as in these examples; in a journal, it can be paragraphs long, where it is called a *literature review*, a survey of what researchers have said that the writer will qualify or correct.

Not every piece of writing opens with this move; some jump to the second element of an introduction: the statement of a problem.

Part 2: Stating the Problem If the writer opens with a shared context, she will typically introduce the problem with a *but* or *however:*

> Alcohol has been a big part of college life for hundreds of years. From football weekends to fraternity parties, college students drink and often drink hard. shared context ***But*** **a kind of drinking known as "binge" drinking is spreading through our colleges and universities. Bingers drink quickly not to be sociable but to get drunk or even to pass out. Bingeing is far from the harmless fun long associated with college life. In the last six months, it has been cited in at least six deaths, many injuries, and considerable destruction of property. It crosses the line from fun to reckless behavior that kills and injures not just drinkers but those around them.** problem
> We may not be able to . . .

The Two Parts of a Problem Problems are more complicated than they seem. For readers to think that something is a problem, it must have two parts:

- The first part is some condition, situation, or recurring event: terrorism, rising tuition, binge drinking, anything that has the potential to cause trouble.
- The second part is the *intolerable consequence* of that condition, a *cost* that readers don't want to pay.

That cost is what motivates readers. They want to eliminate or at least ameliorate it, because it makes them unhappy: the cost of

terrorism is injury and death; the cost of rising tuition is less money for other things or even a lost education. If rising tuition did not make parents and students unhappy, it would be no problem.

You can identify the cost of a problem if you imagine someone asking *So what?* after you state its condition. Answer *So what?* and you have found the cost:

> But a kind of drinking known as "binge" drinking is spreading through our colleges and universities. Bingers drink quickly not to be sociable but to get drunk or even to pass out. condition *So what?* **Bingeing is far from the harmless fun long associated with college life. In the last six months, it has been cited in at least six deaths, many injuries, and considerable destruction of property. It crosses the line from fun to reckless behavior that kills and injures not just drinkers but those around them.** cost of the condition

The condition part of the problem is binge drinking; the cost is death and injury. If bingeing had no cost, it would be no problem. Readers have to see the condition and cost *together* before they see the whole problem.

Two Kinds of Problems: Practical and Conceptual Now it gets complicated, because there are two kinds of problems that motivate readers in different ways. You have to write about them differently.

- One kind of problem is common in the world of practical affairs, so we'll call it *practical*. Practical problems involve what we *do*. Binge drinking is a practical problem.
- The other is more commonly written about in the academic world; we'll call it *conceptual*. Conceptual problems involve what we *think*. That we don't know why students binge is a conceptual problem.

Practical Problems: What We Should Do Binge drinking is an example of a practical problem for two reasons: First, it involves what students *do*. To solve it, someone must *act* differently. Second. it exacts palpable costs that make (or should make) readers unhappy. If we can't avoid a practical problem, we must *do* something in the world to change the condition, in order at least to ameliorate or at best to eliminate its costs.

We usually name a practical problem in a word or two: *cancer, unemployment, binge drinking*. But those terms name only its *condition*: they say nothing about costs. Most conditions sound like trouble, but *anything* can be the condition of a problem if its palpable

costs make you unhappy. If winning the lottery made you suffer the loss of friends and family, it would be a practical problem.

You may think that the costs of a problem like bingeing are too obvious to state, but callous readers might ask, *So what if college students injure or kill themselves? What's that to me?* If so, you have to figure out how to make such readers see that those costs affect them. If you can't describe those costs so that they matter *to your readers*, they have no reason to care about what you've written.

Writers outside the academic world often address practical problems, but most writers inside it address conceptual ones.

Conceptual Problems: What We Should Think A conceptual problem has the same two parts as a practical one, a condition and its costs. But beyond that, the two problems are very different.

- The condition of a conceptual problem is always *something that we do not know or understand.*

We can express the condition of a conceptual problem, what readers don't know, as a question: *How much does the universe weigh? Why does the hair on your head keep growing but the hair on your legs doesn't?*

- The cost of a practical problem is always the palpable unhappiness we feel from pain, suffering, and loss; the cost of a conceptual problem is the dissatisfaction we feel because we don't understand something important to us.

We can express the cost of a conceptual problem as something more important that readers don't know, as *another, larger question*:

> Cosmologists do not know how much the universe weighs. condition *So what?* Well, if they knew, they might figure out something more important: Will time and space go on forever, or end, and if they do, when and how? cost/larger question
>
> Biologists don't know why some hair keeps growing and other hair stops. condition *So what?* If they knew, they might understand something more important: What turns growth on and off? cost/larger question

That larger question may also involve something readers do not know how to do:

> Administrators do not know why students underestimate the risks of binge drinking. condition *So what?* If they knew, they might figure out something more important: Would better information at orientation help students make safer decisions about drinking? cost/larger question

I know that can sound baffling: the cost of one question is yet another question. It is why students new to academic writing find conceptual problems hard to grasp. Think of it like this: for a conceptual problem, you answer a small question so that your answer contributes to answering a larger, more important one. Readers are motivated because your small question inherits its importance from that larger one.

Here's the point: Like your readers, you will usually be more motivated by a large question, such as *Why do young people knowingly engage in dangerous behavior like binge drinking?*, than by a small one like *Why do bingers ignore known risks?* But you can't begin to answer a question as large as the one about dangerous behavior in three, five, or even a hundred pages. So you have to find a question you *can* answer. When you plan your paper, look for a question that is small enough to answer but is also connected to a question large enough for you *and your readers* to care about.

QUICK TIP: Some students think that they don't need a problem statement when their teacher assigns a specific topic, but they are wrong. If your assignment includes words like *discuss, explain,* or *analyze,* your job is to find a question behind that assignment. If your assignment states a question but not its significance, your job is to find a good answer to *So what?* Your paper will be both better written and better received if you begin it with a complete problem statement.

Framing a Conceptual Problem in Writing There are countless ways to frame a conceptual problem. You can best learn them by reading lots of introductions. But for all of them, you must focus on two questions concerning what your readers don't know but should want to. The first question is the one your paper will answer. Be sure to state it not as a direct question but as an assertion that there is something we don't know or understand. To find the second, larger question, imagine readers responding to your small question with a question of their own, *So what?*

Shared context:

Colleges are reporting that binge drinking is increasing. We know its practical risks—death, injury, property damage. We also know that bingers ignore those risks, even after they have learned about them. shared context

Problem:

But we don't know what causes bingers to ignore the known risks: social influences, a personality attracted to risk, or a failure to understand the nature of the risks. condition/small question

[So what?]

If we can determine why bingers ignore known risks of their actions, we can better understand not only the causes of this dangerous behavior but also the nature of risk-taking behavior in general. cost/larger questions

Solution:

In this study, we analyzed . . . We found that . . . solution

All this can be hard to grasp if you're new to an academic field. We readily understand practical problems because the cost they make us pay is palpable. But those new to academic research don't see the costs of conceptual problems as readily: if you don't know what large questions are important to others in your field, you cannot find the small questions that might help answer them. (That's a practical problem that only time and experience solve.)

QUICK TIP: When you read an academic book or essay, look first for the implied question in its problem statement and then for its main claim, which answers that question. They will help focus your reading. If you don't find a question in the introduction, look for one in the conclusion. If that fails. find the main claim and ask yourself, *What question does this answer?* The more you understand *why* a writer is telling you something, the better you will understand what she writes.

Part 3: Stating the Solution Practical and conceptual problems also differ in their solutions. We solve practical problems with action: readers (or someone) must *change what they do*. We solve conceptual problems with information: readers (or someone) must *change what they think*. Your answer to a small question then helps

readers understand a larger one: *How much does the universe weigh? Well, it weighs _____. Now that we know that, we can answer a more important question: What is the fate of existence? The answer is that in 50 billion years or so, the universe will (or will not) exist.*

Practical Problems To solve a practical problem, a solution must propose that the reader (or someone) *do* something to change a condition in the world:

> . . . behavior that crosses the line from fun to recklessness that kills and injures not just drinkers but those around them. problem **We may not be able to stop bingeing entirely, but we must try to control its worst costs by educating students in how to manage its risks.** solution/point

Conceptual Problems To solve a conceptual problem, the solution must state something the writer wants readers to *understand* or *believe:*

> . . . we can better understand not only the causes of this dangerous behavior but also the nature of risk-taking behavior in general. problem **This study reports on our analysis of the beliefs of 300 first-year college students. We found that students were more likely to binge if they knew more stories of other student's bingeing, so that they believed that bingeing is far more common than it actually is.** solution/point

As Darwin and Einstein said, nothing is more difficult than finding a good question, because without one, you don't have an answer worth supporting.

Prelude

There is one more device that writers use in introductions. You may recall being told to "catch your readers' attention" by opening with a snappy quotation, fact, or anecdote. What catches attention best is a problem in need of a solution, but a catchy opening can vividly introduce concepts central to the problem you pose in the rest of your introduction. To name this device, we can use a musical term: *prelude*.

Here are three preludes that could establish key themes in a paper about binge drinking.

1. **A Quotation**
   "If you're old enough to fight for your country, you're old enough to drink to it."

2. **A Startling Fact**
   A recent study reports that at most colleges three out of four students "binged" at least once in the previous thirty days, consuming more than five drinks at a sitting. Almost half binge once a week, and those who binge most are not just members of fraternities but their officers.

3. **An Illustrative Anecdote**
   When Jim S., president of Omega Alpha, accepted a dare from his fraternity brothers to down a pint of whiskey in one long swallow, he didn't plan to become this year's eighth college fatality from alcohol poisoning.

We can combine all three:

> It is often said that "if you're old enough to fight for your country, you're old enough to drink to it." quotation Tragically, Jim S., president of Omega Alpha, no longer has a chance to do either. When he accepted a dare from his fraternity brothers to down a pint of whiskey in one long swallow, he didn't expect to become this year's eighth college fatality from alcohol poisoning. anecdote According to a recent study, at most colleges, three out of four students have, like Jim, drunk five drinks at a sitting in the last thirty days. And those who drink the most are not just members of fraternities but—like Jim S. —officers. striking fact
>
> Drinking, of course, has been a part of American college life since the first college opened . . . shared context But in recent years . . . problem

Writers in the natural and social sciences use preludes rarely. They are more common in the humanities and most common in writing for the general public.

Here, then, is a general plan for your introductions:

Prelude
Shared Context
Problem [Condition + Cost]
Solution / Main Point

Diagnosis and Revision

To diagnose how well your readers will be motivated by your introduction, do this:

1. **Determine whether you are posing a practical or conceptual problem.** Do you want readers to *do* something or just to *think* something?
2. **Draw a line after your introduction.** If you cannot quickly locate the end of your introduction, neither will your readers, who might then miss both your problem and its solution, the main point of your paper.
3. **Divide the introduction into its three parts: shared context + problem + claim.** If you cannot quickly make those divisions, your introduction is likely to seem unfocused.
4. **Is the first word of the first sentence after the shared context *but, however,* or some other word indicating that you will challenge that shared context?** If you don't explicitly signal the contrast between the shared context and the problem, readers may miss it.
5. **Divide the problem into two parts: condition and cost.**

   5a. **Is the condition the right kind for the problem?**

   - If you are addressing a practical problem, the condition can be whatever exacts a palpable cost.
   - If you are addressing a conceptual problem, the condition must be something not known or understood. This should be stated not as a direct question, *What causes bingeing?*, but as a statement of what we do not know: *But we do not know why bingers ignore known risks.*

   5b. **Does the cost appropriately answer *So what?***

   - If you are addressing a practical problem, the answer to *So what?* must state some palpable consequence of the condition that causes unhappiness.
   - If you are addressing a conceptual problem, the answer to *So what?* must state some more significant issue that is not known or understood.
6. **Underline your solution/claim.** It should be the main point of your paper and should, in the stress position at its end, state the key themes that the rest of your paper will develop (more on that in the next lesson).

Conclusions

A good introduction motivates your readers, introduces your key themes, and states your main point, the solution to your motivating problem. Get your introduction straight, and readers can read the rest more quickly and understand it better. A good conclusion, on the other hand, serves a different end: as the last thing your reader reads, it should bring together your point, its significance, and its implications for thinking further about your problem. Conclusions vary more than introductions, but in a pinch, you can map the parts of your introduction onto your conclusion. Just reverse their order:

1. **Open your conclusion by stating (or restating) the gist of your point, the main claim of your paper, the solution to your problem:**

   > Though we can come at the problem of bingeing from several directions, the most important is education, especially in the first week of a student's college life. But that means each university must devote time and resources to it.

2. **Explain its significance by answering *So what?* in a new way, if you can; if not, restate what you offered in the introduction, now as a benefit:**

   > If we do not start to control bingeing soon, many more students will die.
   >
   > If we start to control bingeing now, we will save many lives.

3. **Suggest a further question or problem to be resolved, something still not known. Answer *Now what?*:**

   > Of course, even if we can control bingeing, the larger issue of risk-taking in general will remain a serious problem.

4. **End with an anecdote, quotation, or fact that echoes your prelude. We'll call this by another musical term, your *coda* (again, used most often in popular writing, rarely in the natural and social sciences):**

   > We should not underestimate how deeply entrenched bingeing is: We might have hoped that after Jim S.'s death from alcohol poisoning, his university would have taken steps to prevent more such tragedies. Sad to say, it reported another death from bingeing this month.

There are other ways to conclude, but this one works when nothing better comes to mind.

Summing Up

You motivate purposeful reading with an introduction that states a problem readers want to see solved.

For a practical problem the key is to state its costs so clearly that readers will ask not *So what?* but *What do we do?* Here is a plan for introducing a practical problem:

Alcohol has been a part of college life for hundreds of years. From football weekends to fraternity parties, college students drink and often drink hard. shared context	Open the introduction with *shared context*, a brief statement of what you will go on to qualify or even contradict.
But a kind of drinking known as "binge" drinking is spreading through our colleges and universities. Bingers drink quickly not to be sociable but to get drunk or even to pass out. [*So what?*] condition	Follow that with a statement of the condition of the problem. Introduce it with a *but, however, on the other hand*, etc. Imagine a *So what?* after it.
Bingeing is far from harmless. In the last six months, it has been cited in six deaths, many injuries, and considerable destruction of property. It crosses the line from fun to reckless behavior that kills and injures not just drinkers but those around them. costs	Answer that imagined *So what?* with a statement of the consequences of that condition, its costs *to your readers* that they do not want to pay.
We may not be able to stop bingeing entirely, but we must try to control its worst costs by educating students in how to manage its risks. solution	Conclude with a statement of the solution to the problem, an *action* that will eliminate or at least ameliorate the costs.

For conceptual problems, the key is to state a small question worth answering because it helps to answer a larger, more significant one. It seems unlikely that this question would help us understand anything important: *What color were Lincoln's socks when he delivered the Gettysburg Address?* But this one might: *How did Lincoln plan the Address?* If we knew that, we might learn about something more important: the nature of his creative process. Here is a plan for introducing conceptual problems:

Colleges are reporting that binge drinking is increasing. We know its practical risks. We also know that bingers ignore those risks, even after they have learned about them. shared context	Open the introduction with *shared context*, a brief statement of what you will go on to qualify or even contradict.
But we don't know what causes bingers to ignore the known risks: social influences, a personality attracted to risk, or a failure to understand the nature of the risks. [*So what?*] condition / first, small question	Follow that with a statement of the condition of the problem. Introduce it with a *but, however, on the other hand*, etc. State something that is not known or well understood. Imagine a *So what?* after it.
If we can determine why bingers ignore known risks of their actions, we can better understand not only the causes of this dangerous behavior but also the nature of risk-taking behavior in general. cost/second, larger question	Answer that imagined *So what?* with the cost of the condition, a larger and more important issue that is not known or understood but that might be answered if we know the answer to the first question.
In this study, we analyzed the beliefs of 300 first-year college students to determine . . . We found that . . .] solution	Conclude your introduction with a statement of the solution to the problem, an answer to the first question that helps answer the second one, as well.