Make It Clear

Speak and Write to Persuade and Inform

Patrick Henry Winston

foreword by Gill Pratt

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Foreword by Gill Pratt

Communication is, without question, the most important enabler of human civilization.

Without our sophisticated ability to communicate, we would still be living in caves, desperately searching for resources, while living in fear of predators.

Every man-made thing, from cars to computers to poetry, results from communication.

And yet, the communication bandwidth between human beings is limited to rates on the order of 10 bits per second of Shannon entropy. This rate is astonishingly low—about the same whether we communicate through voice or through writing. By comparison, even ordinary personal computers today can communicate with one another at a gigabit per second—100 million times faster than human communication.

How do we overcome our extraordinary communication bandwidth limitation?

We do so by exploiting the subject of this book—our ability to tell stories that evoke imagination.

Whenever a speaker communicates with a listener, the speaker evokes in the listener's mind a picture—a model—of what is being described. The speaker's words guide the listener's model, assembling in their mind complex ideas drawn from the shared heritage and experience of the speaker and listener.

This model-based communication technique serves the function of compression, with the shared heritage and experiences of both parties playing the role of the constellation of code words used in typical computational data compression.

So, part of the art of effective human communications is the art of compressing data to get through an incredibly small 10 bit/s bottleneck.

The other part of effective communication is holding your audience's interest by having a model of their emotional mind, and evoking and steering their emotions with skill.

There have been few practitioners of both parts of this art more intelligent, capable, and kind than this book's author, Patrick Henry Winston. You can think of Shannon entropy as the amount of information that results from the most effective possible compression.

I use the words speaker and listener interchangeably with writer and reader, respectively. I knew Patrick for 40 years, from my arrival at MIT as a freshman in 1979 to a few days before his passing in 2019, when I had the good fortune of talking to him about communication one last time. Despite the stark setting of his hospital room and illness, we spoke about many things.

First, how the order of 10 bits/s limit seems to exist even for eso-

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data compression—the art of storytelling and the skill of accurately estimating a listener's state of mind and telling a story in a way to elicit interest. We spoke about how understanding the human mind well enough to draw engagement and focus from one's audience remains a rare, but teachable skill.

Patrick taught many of us this art. We learned it by listening to him lecture, and by listening to him lecture about lecturing.

It is hard to describe the joy of being a student of a great teacher. I had the fortune of having Patrick as my greatest teacher of communication. As is true for many others, I owe Patrick a great deal, and I use the lessons he taught me every day.

I cannot imagine a better teacher of this subject than Patrick, or a better storyteller on the art of storytelling.

You are in for a treat.

Gill Pratt

SB '83, SM '87, PhD '89 Electrical Engineering and Computer Science Massachusetts Institute of Technology

CEO, Toyota Research Institute

Fellow, Toyota Motor Corporation

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Prologue: You Will Be Empowered

You will learn how to speak and write well from this book. The return on the time you invest in acquiring knowledge about how to communicate will be bigger than the return on any other investment you make.

In this chapter, you learn that there are principles that apply to all kinds of communication, both spoken and written. If you make use of just one principle from reading this book, that principle may be the life-changing one that gets you the job, wins the award, brings in the grant or contract, makes the sale, convinces your boss, excites the venture capitalist, inspires a student, or starts a revolution.

If you persuade or instruct, speak or write, this book is for you

You persuade and instruct if you work in business, especially in sales and marketing. You persuade and instruct if you train or educate, if you do research in anything from anthropology to zoology, if you are in defense or law enforcement, if you are a student eager to get a good grade, if you preach or run a non-profit organization, and certainly if you practice law, medicine, architecture, or journalism. All these have much in common. All involve moving ideas from you to your audience.

As you persuade and instruct, you will speak and write. Many present with slides or help prepare such presentations. Some lecture, question witnesses, or run for office. Some write scholarly papers, compose position papers, construct legal briefs, or develop business plans. All these have much in common.

You will learn about academic, business, and government communication

When I became a Professor of Artificial Intelligence at MIT, I resolved to study those around me with good communication skills, focusing on what good communicators do that make them good.

As a professor, I listened to and gave lectures, research presentations, conference talks, and task-force reports. As an author,

more effective communicator, you will look for them everywhere. When you hear good speaking and when you read good writing, you will ask yourself why you think the speaking or writing is good and whether you have found a principle you want to adapt to your own developing style. You will, as my friends in the humanities like to say, find your own voice.

Because I offer many principles in this book, it would be hard to find another person who agrees with all of them. Just keep this in mind: some speakers and some writers are great even though they violate some of the offered principles. No good speaker or writer violates them all.

You will be smarter

As you learn how to organize your communications, you will learn how to organize your thoughts, identify strengths and weaknesses, and focus effort on what matters. You also will learn how to identify and remember the essential elements in the communications you hear and read.

Promise

- · You will learn how to speak and write well from this book.
- · You will be richly rewarded for the time you spend reading it.

For more on empowerment promise, see page 143. For more on promise delivery, see page 152. You will learn, for example, that you should start instruction with an empowerment promise and conclude by noting you have delivered on that empowerment promise. In this Prologue, I make empowerment promises. In the Epilogue, page 319, I note I have delivered.

Part I Essentials

Your success likely will be determined by how well you speak, by how well you write, and by the quality of your ideas, in that order.

Patrick Henry Winston; American computer scientist, professor, and writer

Essentials of Persuasion

In this chapter, you learn principles applicable to communication whenever your purpose is to persuade your listeners and readers to think favorably of you, your idea, or your product. You may want them to hire you, honor you, find your idea interesting, make a better decision, believe your idea is the right way, or buy your product.

In particular, you learn how to start and stop spoken presentations and written work so as to ensure you are heard and read. In Essentials for Being Remembered (page 15), you learn principles for being remembered once you are heard and read.

Show your hand immediately

I spent a lot of time in San Diego, CA, as a member of the US Naval Research Advisory Committee (NRAC), a legacy name for a board that advised the US Department of the Navy about science and technology. One day, I was at the Fish Market Restaurant with William Weldon, a Professor from the University of Texas, and Delores Etter, a Professor from the University of Colorado, also members of NRAC.

Somehow the conversation turned to hiring new faculty. It was my great good luck to ask, "What do you look for in a job-interview talk?" Delores said and Bill instantly agreed, "The candidate has to show us they have some sort of vision and they have done something about it."

"How long do they have to get that across?" I asked. Bill answered this one, "Not more than five minutes."

Five minutes! That means you cannot develop your talk like a symphony, holding back your big idea and stupendous results for a big crescendo at the end. Instead, you must show your hand right away.

And what is true for a job-interview talk is also true for any spoken presentation of your ideas. You have at most only a few minutes to convince people to listen to you. If you do not show them that

you or your organization have a vision and have done something about it, they may sit there, but they will fog out, thinking about what to have for lunch or responding to text messages.

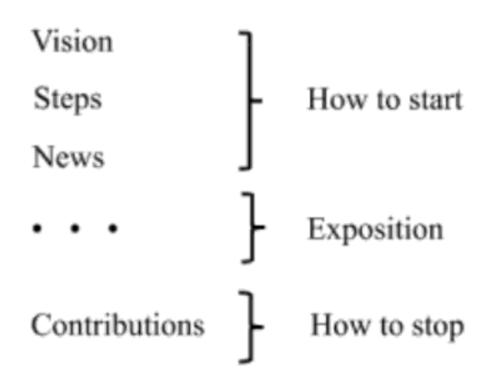
It is even worse for written work: busy readers will devote not more than a few seconds to deciding whether to read about your ideas.

Use the VSN-C framework

So that audiences and readers will see that you have a vision and know that you have done something about it, you need a framework that helps you start and stop. When speaking and writing, I use what I call the Vision-Steps-News...Contributions framework, frequently abbreviated to VSN-C. You start with a quick statement of your Vision; next you enumerate the Steps you have been taking; and then you supply News by describing something that just happened. You finish with an enumeration of your Contributions.

Thus, the bulk of your talk, the exposition part, lies between your Vision, Steps, and News on the front end and your Contributions on the back end.

The Vision–Steps– News··· Contributions framework is a foundation for all sorts of spoken and written communication.



Start with your Vision

Your Vision combines a problem people care about and an approach to that problem's solution. It is necessary, but not sufficient, to care about the problem yourself. You need to be sure your audience also cares.

You should consider breaking up the body of your talk into enumerated parts. That way, you provide places where you can summarize and where those whose attention has strayed can reengage.

Each community has community expectations. If you are giving a technical talk, for example, your community may expect slides with titles such as, for example, *Problem statement*, *Methods*, *Re*sults, When it works and why, and When it fails and why. For more on enumerated parts, see page 112.

For more on community expectations, see page 171.

Conclude with Contributions

Because you want to persuade your listeners and readers that you have done something, you should always conclude a slide-based talk with a slide titled *Contributions*. A slide bearing only the words *Thank You* persuades no one about anything.

Similarly, you should always conclude your written work with a section titled *Contributions*, or a suitable synonym, that summarizes, in a memorable way, what you or your organization contributed to engineering prowess, scientific research, business acumen, military readiness, non-profit achievement, or other work.

No one is persuaded by a slide or section titled *Conclusions* if it just rambles on about how hard the problem is, or who else has worked on it, or what you might do next.

For more on synonyms for *Contributions*, see page 74.

What you need to know

Whenever your purpose is to persuade, as in to convince audiences and readers to think favorably about you, your idea, your work, or your product, you should be sure to honor essentials of persuasion:

- · Show your hand immediately.
- Start with your Vision: identify the problem worth solving and your approach to solving that problem.
- · Explain the Steps you are taking to realize your Vision.
- Excite with some News, often about a recent, impressive Contribution.

- Put the body of your talk after your introductory Vision, Steps, and News slides and before the concluding Contributions slide. Consider breaking up the body of your talk into enumerated parts.
- Conclude with an enumeration of your most important Contributions, explicitly, in a slide titled Contributions or a section titled Contributions. Synonyms for Contributions include Recommendations, Business messages, Assured benefits, Projected earnings, and What your gift will do, but never Conclusions.

Where you can learn more

For more on presentation, see Carmine Gallo's book, *Talk Like TED: The 9 Public-Speaking Secrets of the World's Top Minds* (Gallo, 2015). It features stories about successful, much watched TED talks.

You get used to it.

Julia Child; American chef, writer, and television personality Reply when asked by Patrick Henry Winston, over dinner, "Is it fun to be famous?"

2 Essentials for Being Remembered

In Essentials of Persuasion (page 7) you learned that the VSN-C framework ensures that you are heard and read. In this chapter, you learn five ways to ensure that your spoken presentations and written work are remembered. Subsequent chapters in Part I address how you can ensure you are understood.

Include a slogan

Ask anyone what they remember about someone's spoken or written communication. If they remember anything, with high probability the answer will be in the form of a short, slogan-like word or phrase that serves as a kind of handle.

In my field, Artificial Intelligence, you might remember: Oh, that's the person who talked about *subsumption architecture*, or *back propagation*, or *merge operation*.

Sometimes, the slogan is the name of a system: Oh, yes, that's the person who led the work on *Genesis*, the story-understanding system, or *Watson*, the Jeopardy-playing program.

You should decide on a suitable slogan for your work and be sure everyone knows what that slogan is. In an oral presentation, you can emphasize your slogan by saying explicitly, "The key idea in my work—the idea I want you to remember—is the power of \(\slogan\)\." In written work, you can put your slogan in your title, abstract, beginning, and end, and in a conspicuous section titled The key idea: \(\slogan\)\.

Include a symbol

Symbols also serve as handles on work. Edward Tufte's *The Visual Display of Quantitative Information* (2001) includes a discussion of Charles-Joseph Minard's famous graphic showing what happened when Napoleon invaded Russia. Minard's graphic has become a kind of symbolic handle for Tufte's book.

- Shannon (1948): Each communication channel has a channel capacity, and if you are willing to transmit at that rate or lower, there exists an information coding that will allow error-free transmission.
- Watson and Crick (1953): Deoxyribonucleic acid is a double helix in which the two strands are connected by adenine-thymine and cytosine-guanine pairs.
- Krizhevsky et al. (2012): Modern computing resources make it possible to construct deep neural nets with tens of millions of parameters, and that is enough to turn a curiosity of the 1970s into a world-changing technology 40 years later.
- Berwick and Chomsky (2016): We humans are different from other species because we alone can perform the merge operation, which enables us to construct complex, deeply-nested descriptions.
- Winston and Holmes (2018): The merge operation of Berwick and Chomsky matters because merge enables complex descriptions of relations and events, and when we use those descriptions to create, tell, and understand stories, our intelligence rises to a level higher than that of our primate cousins.

Include a surprise

We all love surprises. We tell people about them at dinner. We tell people about them again in small talk at parties. So if your work has a surprise in it somewhere, be sure to note it. Here is how I would express the surprises in papers by various authors:

- Winston (1970): The surprise in this work is that a program can learn something definite from each example by noting differences between an evolving model and a near-miss example.
- Brooks (1991): The surprise in this work is that an insect-level robot needs no internal model of the world to avoid obstacles, wander around, explore an area, and seek a particular place.
- Nguyen et al. (2014): The surprise in this work is that deep neural nets can be fooled by images that to us look nothing like the category identified.
- Winston (2018): The surprise in this work is that a story-processing program can tell its own story and process that story, giving the program a kind of self-awareness.

Include a story

Throughout this book, I emphasize that we humans love stories. We want to know not only about ideas and results, but also about who developed them and how. Why did she start to work on the problem? With whom did he work? How did they interact with each other? Was it in the office at a blackboard or strolling along a beach? Did they lose sleep? How long were they stuck? Was there an epiphanous moment? Did someone have a dream? What do they think will happen next?

How to Speak

Here, for example, is how this book came to be written. It started with an accidental conversation several decades ago. I was sitting in my office with a graduate student, Robert Sjoberg, whining about a horrible lecture I had just endured.

Bob said, "You should do a talk on how to speak during MIT's Independent Activities Period."

"No," I said, "I've never given a talk I rate at better than a B+; I would be upset about my performance for a month afterward; it would take a week to prepare; and besides, nobody would come."

"I'll come," he said.

Somehow, that was persuasive, so I started thinking about what I had learned about speaking from various experts, starting when I was myself an MIT undergraduate.

- From David Peterson, I learned to use verbal punctuation.
- From A. R. Gurney, I learned the power of props.
- From Amar Bose, I learned to forbid distractions.
- · From Walle Nauta, I learned to draw practiced diagrams.
- From Marvin Minsky, I learned the importance of passion.
- From Randall Davis, I learned to start with a promise.
- From Gerald Jay Sussman, I learned the power of names for things.
- · And from a host of others, I learned about what to avoid.

Actually, that first *How to Speak* talk drew about a hundred listeners, so I kept going, and now the talk has become an MIT tradition, with several hundred attending each year.

The annual How to Speak talk in the Center of the Universe, MIT Room 10-250. Image courtesy of Chiai Takahashi.

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The Tale of Torn Tendons

Then, about 20 years ago, I decided to introduce a new MIT subject, *The Human Intelligence Enterprise*, focused on reading original papers and discussing them. We talk about everything from early papers by Turing and Minsky to work not yet published.

We discuss communication principles, some drawn from the *How* to *Speak* talk, as well as technical content. We talk about speaking, writing, grant proposals, opinion pieces, business evaluations, how to make decisions, how to persuade, and how to inform.

From time to time, mostly because of student hounding, I thought about capturing some of what we talk about in a book, but I was always too busy.

Then, something unfortunate happened: I managed to tear my quadriceps tendons off my knee caps when I tripped on a step. I like to think of it as a sports-related accident because it happened at the end of a long run.

After my tendons were reattached, I was stuck for weeks in impressive leg braces in a hospital bed. I was bored beyond description because I could not sit in front of my big screens and program.

Then one day it occurred to me I could work up a book outline on the back of a page of my physical therapy instructions. Next, I scribbled out a few fragments on a laptop, thinking I would use them, if for nothing else, as notes for *The Human Intelligence Enterprise* class. By the time I was back sitting in front of my big screens, 150 pages had emerged. I started thinking there might be enough material for a book, and, eventually, my tendons healed, and the 150 pages grew into this silver lining.

Ensure that you are remembered with Winston's star

A well-crafted and explicitly identified Slogan, Symbol, Salient idea, Surprise, and Story combine to make you and your work more memorable. Conveniently, all five elements have labels that start with *S*, making them easier, at least for me, to remember. They form the points on what some people call Winston's star:

Five elements every presentation and paper should have.

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Note that this chapter conspicuously contains all the elements of Winston's star. Winston's star is the Slogan. The star image is the Symbol. The Surprise is that you can make your work much more memorable without much effort. The Salient idea is that all you need do is add the elements in the star. The How to Speak and The Tale of Torn Tendons stories provide human interest and connections to experience.

For more on *How to* Speak, see page 19.

For more on *The Tale* of *Torn Tendons*, see page 312.

What you need to know

You and your work make a more lasting impression if you include five elements that make your work more memorable:

- Highlight a pithy Slogan.
- Include an iconic Symbol.
- Identify a Surprise.
- · Point out a Salient idea.
- Tell a Story.

3 Essentials of Instruction

In this chapter, you learn essential points of strategy for instruction. These essential points of strategy will make you more effective in both classrooms and books. In *Essentials of Persuasion* (page 7), you learn essential points of strategy for spoken and written persuasion. There is, of course, much overlap.

Start with an empowerment promise

If you are instructing, you should tell your students what they will be able to do or want to do after they listen to you speak or read what you write. Here is an example for the book and another for the chapter:

You will learn how to speak and write well from this book. The return on the time you invest in acquiring knowledge about how to communicate will be bigger than the return on any other investment you make.

In this chapter, you learn essential points of strategy for instruction. These essential points of strategy will make you more effective in both classrooms and books.

Tell stories

We are storytelling animals. In fact, our ability to tell, understand, and compose stories distinguishes the human species from all other animals, living and no longer living. That is why, in my Artificial Intelligence work, I focus on developing an account of our human ability to create, tell, and understand stories.

Jonathan Gottschall, a humanist, agrees that our story competences make us different. In his book titled, fittingly, *The Storytelling Animal: How Stories Make Us Human*, he notes that stories are like flight simulators for real life. He starts every chapter, unsurprisingly, with a story (Gottschall, 2012).

Gottschall notes that when there is no explanation, we tend to make one up, because we are an explanation-seeking species.

Stories have more impact than statistics. Do you want to deter a teenager from smoking? Forget the statistics; tell a story about someone suffering from emphysema. Include illustrations.

Stories are everywhere

In many fields, instruction means analyzing case studies. Law, business, and medicine come to mind, but those are just three of many disciplines characterized by story-based instruction.

- We teach law, business, and medicine via case studies.
- We tell children about danger, good, and evil via fairy tales.
- We convey aspects of culture via the folk tales of the culture.
- We give religious instruction via parables.
- We expose the human condition via literature.
- We shed light on human and societal tendencies via biography and history.

You might think science and engineering are exceptions, but they are not. My colleague Gerald Jay Sussman knows a lot about circuit design, one of his many talents. When he talks about a circuit, he tells a story about how a signal passes through all the components. It is as if the circuit diagram were a kind of storyboard.

Explaining a circuit, viewed as telling a story. A signal enters from the left, goes through capacitor C_{in} , presents itself at the base of transistor $Q1_a$, Image courtesy of Gerald Jay Sussman.

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Stories teach principles and methods

Consider the do-not-plagiarize principle. Myriad stories demonstrate the folly of plagiarism. Checking is easy, and the guilty, if they rise to importance, always get caught. When I teach the principle, I tell a few plagiarism stories to illustrate and emphasize the point.

What about skills such as document processing or automobile repair? Many such skills amount to following various recipes, and following recipes is a special case of retelling a story.

Stories teach you how to think

Ask any instructor what is the most important thing he or she teaches. Chances are, the reply will be, "How to think." But how do you teach someone how to think? The answer: by telling stories that serve as precedents for dealing with the future. The American Revolutionary War patriot, Patrick Henry, emphasized the point in one of the most famous speeches of all time, the *Give me liberty or give me death* speech to the Second Virginia Convention on March 23, 1775:

I have but one lamp by which my feet are guided; and that is the lamp of experience. I know of no way of judging of the future but by the past. (Copeland and Lamm, 1973)

If you are teaching, you do your students a great favor if you not only tell them what to do, but also tell them the story of how the ideas developed. Bring the story alive by noting the characteristics of the people involved. Were they visionary, persistent, and passionate, or just lucky? Were they geniuses? Did they have sharp edges? Did they work it all out on a Saturday afternoon or only after years of struggle?

Deliver on your promise

Once you have made a promise, you need to deliver, and once you have delivered, you should say so. You should say so explicitly because your students may not infer that you have delivered. In a class, you might say something analogous to the following:

- So there you have it; you know why the full moon looks flat.
- · So there you have it; you know how to turn lead into gold.
- So there you have it; you know how to get elected.

Written instruction also should note that you have delivered on an up-front empowerment promise. That is why each chapter in this book starts with an empowerment promise and ends with an empowerment-identifying section titled, "What you need to know." That also is why I titled the Prologue, "You Will Be Empowered," and the Epilogue, "You Are Empowered."

What you need to know

So there you have it, you know you should start with an empowerment promise, you understand why stories are important, and you know you should stop by noting that you have delivered on your promise.

I have delivered on my empowerment promise because I have explained how you can be a better instructor and increased your likelihood of inspiring your students.

- You should start each instruction unit—class or chapter—with an empowerment promise.
- You should be sure to note that you have delivered on your promise.
- You should tell stories because we humans love stories and because stories are the center of education at all levels.

4 Essentials of Outlining

In this chapter, you learn how to work up an outline in preparation for all types of communication. In particular, you learn problems associated with a formal outline, and you learn how to deploy a broken-glass outline, which is easier to work with and much more effective.

You could make a formal outline

To structure what you want to say or write, you can make a formal outline, sometimes called a Harvard outline, which specifies a hierarchical structure:

- I. A major division
 - A. A major subdivision
 - 1. A minor subdivision
 - 2. Another minor subdivision
 - B. Another major subdivision
- II. Another major division
 - A. A major subdivision in the second major division
 - B. Another major subdivision in the second major division

Here is how such an outline would look if I had decided to make one in preparation for writing this book:

- I. Essentials
 - A. This book will empower you
 - 1. If you persuade and instruct, this book is for you
 - 2. If you speak and write, this book is for you
 - 3. ..
 - B. How to be persuasive

C. ...

II. ...

When the Harvard outline is taught, instructors often issue stern warnings: You must follow each Roman numeral, each capital letter, and each Arabic numeral with a period. You cannot have one Similarly, from the *Essentials of Instruction* (page 25) discussion, you know that your class or chapter will have standard spokes for starting, stories, and stopping.

The three standard instruction spokes: Empowerment promise, Stories, and Deliver on promise.

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Add detail

For more on active verbs, see page 74.

With the overall structure in place, you begin to add detail. For the Vision spoke in a persuasion talk, you identify the problem and the ideas involved in your approach. For the Steps, you recall what you have done. For the News, you pick some impressive recent result. For the Contributions, you articulate what you have contributed, exercising active verbs such as *hypothesized*, *developed*, and *showed*.

Then, you work on the other spokes, some of which will echo your Steps. You may choose to work depth first, adding spokes down several levels in one place. You may work breadth first, adding spokes at the next level to existing spokes everywhere. You may cross out, comment, add reordering lines, or detach and reattach. You may erase or start over.

If the structure becomes unbalanced, you see it, make adjustments, and eventually, bring everything into balance.

If you are feeling artistic, you can annotate with colored pencil. If you want to work on it with another person or a group, you can work on a board. It is flexible. It works. It is a practical solution.

Maybe it will come to be called the MIT outline.

Drawing makes you smarter

When you draw, you actuate your human visual-thinking faculty. You see how your ideas fit together and flow into one another. By exercising visual thinking, you discover ideas that you did not know you had. One of them may displace what you thought to be your main idea.

Traveling out the spokes of a broken-glass outline helps you recall how your ideas have developed, as when a sketch becomes a painting.

Once your broken-glass outline looks right, then you can make a Harvard outline if you want one.

Broken-glass outlines can help you learn

So far, you have learned that a broken-glass outline helps you prepare to persuade or instruct. Building such an outline can also help you to understand what you hear or read and to remember the most important points. Standard spokes tell you what to look for, as in this illustration by Zhutian Yang.

A broken-glass outline captures key points from a classroom questionand-answer session with Robert Berwick. Image courtesy of Zhutian Yang.

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For more on how telling yourself a story helps you learn and remember, see page 25.

By arranging and populating standard spokes, you tell yourself a story and telling yourself a story helps you learn and remember.

Broken-glass outlines can help you create

You can use something like a broken-glass outline not only for arranging your ideas and taking notes, but also for creative exploring. Clustering, mind mapping, and idea mapping are names for methodologies that use visualizations much like a broken-glass outline to stimulate creative thinking.

What you need to know

- Use a flexible, easily revised broken-glass outline to avoid the rigidity and awkward imperatives of a formal outline.
- For persuasion, a broken-glass outline generally includes four key spokes, one each for the Vision, Steps, News, and Contributions.
- For instruction, a broken-glass outline generally includes three key spokes, one each for the empowerment promise, stories to be told, and the delivery on the promise.

Criticism may not be agreeable, but it is necessary. It fulfils the same function as pain in the human body; it calls attention to the development of an unhealthy state of things. If it is heeded in time, danger may be averted; if it is suppressed, a fatal distemper may develop.

Winston S. Churchill; British statesman, writer, and Prime Minister

From an interview in the 7 January 1939 issue of New Statesman Magazine (Martin, 2013)

Asking the maximum-improvement question is not an invitation for ego destruction. It is a question every speaker, even the best, should ask. It is an easy question for a friend to answer because it involves improvement, not evaluation.

So phrased, the maximum-improvement question not only asks your friends to identify the best dimensions for improvement, it also asks what specifically you need to do. It is not a matter of whether you get an A or a D in the passion dimension; it is instead a matter of how you can express more passion, perhaps by sprinkling into your talk a few phrases such as "...and that, I think, is really, really exciting," said, of course, with excitement in your voice.

You also can supply some guidance on where attention should be focused, as in the following:

- Watch for any use of filler words.
- Watch for any instances of up talking.
- Note if I seem excited and passionate about what I do.

Without such guidance, your friends might not think to focus on aspects of your talk or paper that are especially important to you.

You might also give your friends a quiz afterward to see if what you tried to do actually worked.

- · What is my vision?
- What did I just now accomplish?
- · What are my most important contributions?

Offer actionable, principled, positive advice

When you offer advice, remember that you are not trying to prove that you are smarter or better educated than the recipient of your advice. Your purpose is to help a friend or colleague to improve their speaking or writing via maximum improvement on energy expended. For more on filler words, see page 120. For more on up talking, see page 121.

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