Foreword

We were keeping our eye on 1984. When the year came and the prophecy didn't, thoughtful Americans sang softly in praise of themselves. The roots of liberal democracy had held. Wherever else the terror had happened, we, at least, had not been visited by Orwellian nightmares.

But we had forgotten that alongside Orwell's dark vision, there was another—slightly older, slightly less well known, equally chilling: Aldous Huxley's *Brave New World*. Contrary to common belief even among the educated, Huxley and Orwell did not prophesy the same thing. Orwell warns that we will be overcome by an externally imposed oppression. But in Huxley's vision, no Big Brother is required to deprive people of their autonomy, maturity and history. As he saw it, people will come to love their oppression, to adore the technologies that undo their capacities to think.

What Orwell feared were those who would ban books. What Huxley feared was that there would be no reason to ban a book, for there would be no one who wanted to read one. Orwell feared those who would deprive us of information. Huxley feared those who would give us so much that we would be reduced to passivity and egoism. Orwell feared that the truth would be concealed from us. Huxley feared the truth would be drowned in a sea of irrelevance. Orwell feared we would become a captive culture. Huxley feared we would become a trivial culture, preoccupied with some equivalent of the feelies, the orgy porgy, and the centrifugal bumblepuppy. As Huxley re-

marked in *Brave New World Revisited,* the civil libertarians and rationalists who are ever on the alert to oppose tyranny "failed to take into account man's almost infinite appetite for distractions." In *1984,* Huxley added, people are controlled by inflicting pain. In *Brave New World,* they are controlled by inflicting pleasure. In short, Orwell feared that what we hate will ruin us. Huxley feared that what we love will ruin us.

This book is about the possibility that Huxley, not Orwell, was right.

I.

The Medium Is the Metaphor

At different times in our history, different cities have been the focal point of a radiating American spirit. In the late eighteenth century, for example, Boston was the center of a political radicalism that ignited a shot heard round the world—a shot that could not have been fired any other place but the suburbs of Boston. At its report, all Americans, including Virginians, became Bostonians at heart. In the mid-nineteenth century, New York became the symbol of the idea of a melting-pot America—or at least a non-English one—as the wretched refuse from all over the world disembarked at Ellis Island and spread over the land their strange languages and even stranger ways. In the early twentieth century, Chicago, the city of big shoulders and heavy winds, came to symbolize the industrial energy and dynamism of America. If there is a statue of a hog butcher somewhere in Chicago, then it stands as a reminder of the time when America was railroads, cattle, steel mills and entrepreneurial adventures. If there is no such statue, there ought to be, just as there is a statue of a Minute Man to recall the Age of Boston, as the Statue of Liberty recalls the Age of New York.

Today, we must look to the city of Las Vegas, Nevada, as a metaphor of our national character and aspiration, its symbol a thirty-foot-high cardboard picture of a slot machine and a chorus girl. For Las Vegas is a city entirely devoted to the idea of entertainment, and as such proclaims the spirit of a culture in which all public discourse increasingly takes the form of entertainment. Our politics, religion, news, athletics, education and

commerce have been transformed into congenial adjuncts of show business, largely without protest or even much popular notice. The result is that we are a people on the verge of amusing ourselves to death.

As I write, the President of the United States is a former Hollywood movie actor. One of his principal challengers in 1984 was once a featured player on television's most glamorous show of the 1960's, that is to say, an astronaut. Naturally, a movie has been made about his extraterrestrial adventure. Former nominee George McGovern has hosted the popular television show "Saturday Night Live." So has a candidate of more recent vintage, the Reverend Jesse Jackson.

Meanwhile, former President Richard Nixon, who once claimed he lost an election because he was sabotaged by make-up men, has offered Senator Edward Kennedy advice on how to make a serious run for the presidency: lose twenty pounds. Although the Constitution makes no mention of it, it would appear that fat people are now effectively excluded from running for high political office. Probably bald people as well. Almost certainly those whose looks are not significantly enhanced by the cosmetician's art. Indeed, we may have reached the point where cosmetics has replaced ideology as the field of expertise over which a politician must have competent control.

America's journalists, i.e., television newscasters, have not missed the point. Most spend more time with their hair dryers than with their scripts, with the result that they comprise the most glamorous group of people this side of Las Vegas. Although the Federal Communications Act makes no mention of it, those without camera appeal are excluded from addressing the public about what is called "the news of the day." Those with camera appeal can command salaries exceeding one million dollars a year.

American businessmen discovered, long before the rest of us, that the quality and usefulness of their goods are subordinate to the artifice of their display; that, in fact, half the principles of

capitalism as praised by Adam Smith or condemned by Karl Marx are irrelevant. Even the Japanese, who are said to make better cars than the Americans, know that economics is less a science than a performing art, as Toyota's yearly advertising budget confirms.

Not long ago, I saw Billy Graham join with Shecky Green, Red Buttons, Dionne Warwick, Milton Berle and other theologians in a tribute to George Burns, who was celebrating himself for surviving eighty years in show business. The Reverend Graham exchanged one-liners with Burns about making preparations for Eternity. Although the Bible makes no mention of it, the Reverend Graham assured the audience that God loves those who make people laugh. It was an honest mistake. He merely mistook NBC for God.

Dr. Ruth Westheimer is a psychologist who has a popular radio program and a nightclub act in which she informs her audiences about sex in all of its infinite variety and in language once reserved for the bedroom and street corners. She is almost as entertaining as the Reverend Billy Graham, and has been quoted as saying, "I don't start out to be funny. But if it comes out that way, I use it. If they call me an entertainer, I say that's great. When a professor teaches with a sense of humor, people walk away remembering."[1] She did not say what they remember or of what use their remembering is. But she has a point: It's great to be an entertainer. Indeed, in America God favors all those who possess both a talent and a format to amuse, whether they be preachers, athletes, entrepreneurs, politicians, teachers or journalists. In America, the least amusing people are its professional entertainers.

Culture watchers and worriers—those of the type who read books like this one—will know that the examples above are not aberrations but, in fact, clichés. There is no shortage of critics who have observed and recorded the dissolution of public discourse in America and its conversion into the arts of show business. But most of them, I believe, have barely begun to tell the

story of the origin and meaning of this descent into a vast triviality. Those who have written vigorously on the matter tell us, for example, that what is happening is the residue of an exhausted capitalism; or, on the contrary, that it is the tasteless fruit of the maturing of capitalism; or that it is the neurotic aftermath of the Age of Freud; or the retribution of our allowing God to perish; or that it all comes from the old stand-bys, greed and ambition.

I have attended carefully to these explanations, and I do not say there is nothing to learn from them. Marxists, Freudians, Lévi-Straussians, even Creation Scientists are not to be taken lightly. And, in any case, I should be very surprised if the story I have to tell is anywhere near the whole truth. We are all, as Huxley says someplace, Great Abbreviators, meaning that none of us has the wit to know the whole truth, the time to tell it if we believed we did, or an audience so gullible as to accept it. But you *will* find an argument here that presumes a clearer grasp of the matter than many that have come before. Its value, such as it is, resides in the directness of its perspective, which has its origins in observations made 2,300 years ago by Plato. It is an argument that fixes its attention on the forms of human conversation, and postulates that how we are obliged to conduct such conversations will have the strongest possible influence on what ideas we can conveniently express. And what ideas are convenient to express inevitably become the important content of a culture.

I use the word "conversation" metaphorically to refer not only to speech but to all techniques and technologies that permit people of a particular culture to exchange messages. In this sense, all culture is a conversation or, more precisely, a corporation of conversations, conducted in a variety of symbolic modes. Our attention here is on how forms of public discourse regulate and even dictate what kind of content can issue from such forms.

To take a simple example of what this means, consider the

primitive technology of smoke signals. While I do not know exactly what content was once carried in the smoke signals of American Indians, I can safely guess that it did not include philosophical argument. Puffs of smoke are insufficiently complex to express ideas on the nature of existence, and even if they were not, a Cherokee philosopher would run short of either wood or blankets long before he reached his second axiom. You cannot use smoke to do philosophy. Its form excludes the content.

To take an example closer to home: As I suggested earlier, it is implausible to imagine that anyone like our twenty-seventh President, the multi-chinned, three-hundred-pound William Howard Taft, could be put forward as a presidential candidate in today's world. The shape of a man's body is largely irrelevant to the shape of his ideas when he is addressing a public in writing or on the radio or, for that matter, in smoke signals. But it is quite relevant on television. The grossness of a three-hundred-pound image, even a talking one, would easily overwhelm any logical or spiritual subtleties conveyed by speech. For on television, discourse is conducted largely through visual imagery, which is to say that television gives us a conversation in images, not words. The emergence of the image-manager in the political arena and the concomitant decline of the speech writer attest to the fact that television demands a different kind of content from other media. You cannot do political philosophy on television. Its form works against the content.

To give still another example, one of more complexity: The information, the content, or, if you will, the "stuff" that makes up what is called "the news of the day" did not exist—could not exist—in a world that lacked the media to give it expression. I do not mean that things like fires, wars, murders and love affairs did not, ever and always, happen in places all over the world. I mean that lacking a technology to advertise them, people could not attend to them, could not include them in their daily business. Such information simply could not exist as

part of the content of culture. This idea—that there is a content called "the news of the day"—was entirely created by the telegraph (and since amplified by newer media), which made it possible to move decontextualized information over vast spaces at incredible speed. The news of the day is a figment of our technological imagination. It is, quite precisely, a media event. We attend to fragments of events from all over the world because we have multiple media whose forms are well suited to fragmented conversation. Cultures without speed-of-light media—let us say, cultures in which smoke signals are the most efficient space-conquering tool available—do not have news of the day. Without a medium to create its form, the news of the day does not exist.

To say it, then, as plainly as I can, this book is an inquiry into and a lamentation about the most significant American cultural fact of the second half of the twentieth century: the decline of the Age of Typography and the ascendancy of the Age of Television. This change-over has dramatically and irreversibly shifted the content and meaning of public discourse, since two media so vastly different cannot accommodate the same ideas. As the influence of print wanes, the content of politics, religion, education, and anything else that comprises public business must change and be recast in terms that are most suitable to television.

If all of this sounds suspiciously like Marshall McLuhan's aphorism, the medium is the message, I will not disavow the association (although it is fashionable to do so among respectable scholars who, were it not for McLuhan, would today be mute). I met McLuhan thirty years ago when I was a graduate student and he an unknown English professor. I believed then, as I believe now, that he spoke in the tradition of Orwell and Huxley—that is, as a prophesier, and I have remained steadfast to his teaching that the clearest way to see through a culture is to attend to its tools for conversation. I might add that my interest in this point of view was first stirred by a prophet far more

formidable than McLuhan, more ancient than Plato. In studying the Bible as a young man, I found intimations of the idea that forms of media favor particular kinds of content and therefore are capable of taking command of a culture. I refer specifically to the Decalogue, the Second Commandment of which prohibits the Israelites from making concrete images of anything. "Thou shalt not make unto thee any graven image, any likeness of any thing that is in heaven above, or that is in the earth beneath, or that is in the water beneath the earth." I wondered then, as so many others have, as to why the God of these people would have included instructions on how they were to symbolize, or not symbolize, their experience. It is a strange injunction to include as part of an ethical system *unless its author assumed a connection between forms of human communication and the quality of a culture.* We may hazard a guess that a people who are being asked to embrace an abstract, universal deity would be rendered unfit to do so by the habit of drawing pictures or making statues or depicting their ideas in any concrete, iconographic forms. The God of the Jews was to exist in the Word and through the Word, an unprecedented conception requiring the highest order of abstract thinking. Iconography thus became blasphemy so that a new kind of God could enter a culture. People like ourselves who are in the process of converting their culture from word-centered to image-centered might profit by reflecting on this Mosaic injunction. But even if I am wrong in these conjectures, it is, I believe, a wise and particularly relevant supposition that the media of communication available to a culture are a dominant influence on the formation of the culture's intellectual and social preoccupations.

Speech, of course, is the primal and indispensable medium. It made us human, keeps us human, and in fact defines what human means. This is not to say that if there were no other means of communication all humans would find it equally convenient to speak about the same things in the same way. We know enough about language to understand that variations in the

structures of languages will result in variations in what may be called "world view." How people think about time and space, and about things and processes, will be greatly influenced by the grammatical features of their language. We dare not suppose therefore that all human minds are unanimous in understanding how the world is put together. But how much more divergence there is in world view among different cultures can be imagined when we consider the great number and variety of tools for conversation that go beyond speech. For although culture is a creation of speech, it is recreated anew by every medium of communication—from painting to hieroglyphs to the alphabet to television. Each medium, like language itself, makes possible a unique mode of discourse by providing a new orientation for thought, for expression, for sensibility. Which, of course, is what McLuhan meant in saying the medium is the message. His aphorism, however, is in need of amendment because, as it stands, it may lead one to confuse a message with a metaphor. A message denotes a specific, concrete statement about the world. But the forms of our media, including the symbols through which they permit conversation, do not make such statements. They are rather like metaphors, working by unobtrusive but powerful implication to enforce their special definitions of reality. Whether we are experiencing the world through the lens of speech or the printed word or the television camera, our media-metaphors classify the world for us, sequence it, frame it, enlarge it, reduce it, color it, argue a case for what the world is like. As Ernst Cassirer remarked:

> Physical reality seems to recede in proportion as man's symbolic activity advances. Instead of dealing with the things themselves man is in a sense constantly conversing with himself. He has so enveloped himself in linguistic forms, in artistic images, in mythical symbols or religious rites that he cannot see or know anything except by the interposition of [an] artificial medium.[2]

What is peculiar about such interpositions of media is that their role in directing what we will see or know is so rarely noticed. A person who reads a book or who watches television or who glances at his watch is not usually interested in how his mind is organized and controlled by these events, still less in what idea of the world is suggested by a book, television, or a watch. But there are men and women who have noticed these things, especially in our own times. Lewis Mumford, for example, has been one of our great noticers. He is not the sort of a man who looks at a clock merely to see what time it is. Not that he lacks interest in the content of clocks, which is of concern to everyone from moment to moment, but he is far more interested in how a clock creates the idea of "moment to moment." He attends to the philosophy of clocks, to clocks as metaphor, about which our education has had little to say and clock makers nothing at all. "The clock," Mumford has concluded, "is a piece of power machinery whose 'product' is seconds and minutes." In manufacturing such a product, the clock has the effect of disassociating time from human events and thus nourishes the belief in an independent world of mathematically measurable sequences. Moment to moment, it turns out, is not God's conception, or nature's. It is man conversing with himself about and through a piece of machinery he created.

In Mumford's great book *Technics and Civilization*, he shows how, beginning in the fourteenth century, the clock made us into time-keepers, and then time-savers, and now time-servers. In the process, we have learned irreverence toward the sun and the seasons, for in a world made up of seconds and minutes, the authority of nature is superseded. Indeed, as Mumford points out, with the invention of the clock, Eternity ceased to serve as the measure and focus of human events. And thus, though few would have imagined the connection, the inexorable ticking of the clock may have had more to do with the weakening of God's supremacy than all the treatises produced by the phi-

losophers of the Enlightenment; that is to say, the clock introduced a new form of conversation between man and God, in which God appears to have been the loser. Perhaps Moses should have included another Commandment: Thou shalt not make mechanical representations of time.

That the alphabet introduced a new form of conversation between man and man is by now a commonplace among scholars. To be able to *see* one's utterances rather than only to hear them is no small matter, though our education, once again, has had little to say about this. Nonetheless, it is clear that phonetic writing created a new conception of knowledge, as well as a new sense of intelligence, of audience and of posterity, all of which Plato recognized at an early stage in the development of texts. "No man of intelligence," he wrote in his Seventh Letter, "will venture to express his philosophical views in language, especially not in language that is unchangeable, which is true of that which is set down in written characters." This notwithstanding, he wrote voluminously and understood better than anyone else that the setting down of views in written characters would be the beginning of philosophy, not its end. Philosophy cannot exist without criticism, and writing makes it possible and convenient to subject thought to a continuous and concentrated scrutiny. Writing freezes speech and in so doing gives birth to the grammarian, the logician, the rhetorician, the historian, the scientist—all those who must hold language before them so that they can see what it means, where it errs, and where it is leading.

Plato knew all of this, which means that he knew that writing would bring about a perceptual revolution: a shift from the ear to the eye as an organ of language processing. Indeed, there is a legend that to encourage such a shift Plato insisted that his students study geometry before entering his Academy. If true, it was a sound idea, for as the great literary critic Northrop Frye has remarked, "the written word is far more powerful than simply a reminder: it re-creates the past in the present, and gives

us, not the familiar remembered thing, but the glittering intensity of the summoned-up hallucination."[3]

All that Plato surmised about the consequences of writing is now well understood by anthropologists, especially those who have studied cultures in which speech is the only source of complex conversation. Anthropologists know that the written word, as Northrop Frye meant to suggest, is not merely an echo of a speaking voice. It is another kind of voice altogether, a conjurer's trick of the first order. It must certainly have appeared that way to those who invented it, and that is why we should not be surprised that the Egyptian god Thoth, who is alleged to have brought writing to the King Thamus, was also the god of magic. People like ourselves may see nothing wondrous in writing, but our anthropologists know how strange and magical it appears to a purely oral people—a conversation with no one and yet with everyone. What could be stranger than the silence one encounters when addressing a question to a text? What could be more metaphysically puzzling than addressing an unseen audience, as every writer of books must do? And correcting oneself because one knows that an unknown reader will disapprove or misunderstand?

I bring all of this up because what my book is about is how our own tribe is undergoing a vast and trembling shift from the magic of writing to the magic of electronics. What I mean to point out here is that the introduction into a culture of a technique such as writing or a clock is not merely an extension of man's power to bind time but a transformation of his way of thinking—and, of course, of the content of his culture. And that is what I mean to say by calling a medium a metaphor. We are told in school, quite correctly, that a metaphor suggests what a thing is like by comparing it to something else. And by the power of its suggestion, it so fixes a conception in our minds that we cannot imagine the one thing without the other: Light is a wave; language, a tree; God, a wise and venerable man; the mind, a dark cavern illuminated by knowledge. And if these

metaphors no longer serve us, we must, in the nature of the matter, find others that will. Light is a particle; language, a river; God (as Bertrand Russell proclaimed), a differential equation; the mind, a garden that yearns to be cultivated.

But our media-metaphors are not so explicit or so vivid as these, and they are far more complex. In understanding their metaphorical function, we must take into account the symbolic forms of their information, the source of their information, the quantity and speed of their information, the context in which their information is experienced. Thus, it takes some digging to get at them, to grasp, for example, that a clock recreates time as an independent, mathematically precise sequence; that writing recreates the mind as a tablet on which experience is written; that the telegraph recreates news as a commodity. And yet, such digging becomes easier if we start from the assumption that in every tool we create, an idea is embedded that goes beyond the function of the thing itself. It has been pointed out, for example, that the invention of eyeglasses in the twelfth century not only made it possible to improve defective vision but suggested the idea that human beings need not accept as final either the endowments of nature or the ravages of time. Eyeglasses refuted the belief that anatomy is destiny by putting forward the idea that our bodies as well as our minds are improvable. I do not think it goes too far to say that there is a link between the invention of eyeglasses in the twelfth century and gene-splitting research in the twentieth.

Even such an instrument as the microscope, hardly a tool of everyday use, had embedded within it a quite astonishing idea, not about biology but about psychology. By revealing a world hitherto hidden from view, the microscope suggested a possibility about the structure of the mind.

If things are not what they seem, if microbes lurk, unseen, on and under our skin, if the invisible controls the visible, then is it not possible that ids and egos and superegos also lurk somewhere unseen? What else is psychoanalysis but a microscope of

the mind? Where do our notions of mind come from if not from metaphors generated by our tools? What does it mean to say that someone has an IQ of 126? There are no numbers in people's heads.. Intelligence does not have quantity or magnitude, except as we believe that it does. And why do we believe that it does? Because we have tools that imply that this is what the mind is like. Indeed, our tools for thought suggest to us what our bodies are like, as when someone refers to her "biological clock," or when we talk of our "genetic codes," or when we read someone's face like a book, or when our facial expressions telegraph our intentions.

When Galileo remarked that the language of nature is written in mathematics, he meant it only as a metaphor. Nature itself does not speak. Neither do our minds or our bodies or, more to the point of this book, our bodies politic. Our conversations about nature and about ourselves are conducted in whatever "languages" we find it possible and convenient to employ. We do not see nature or intelligence or human motivation or ideology as "it" is but only as our languages are. And our languages are our media. Our media are our metaphors. Our metaphors create the content of our culture.

2.

Media as Epistemology

It is my intention in this book to show that a great media-metaphor shift has taken place in America, with the result that the content of much of our public discourse has become dangerous nonsense. With this in view, my task in the chapters ahead is straightforward. I must, first, demonstrate how, under the governance of the printing press, discourse in America was different from what it is now—generally coherent, serious and rational; and then how, under the governance of television, it has become shriveled and absurd. But to avoid the possibility that my analysis will be interpreted as standard-brand academic whimpering, a kind of elitist complaint against "junk" on television, I must first explain that my focus is on epistemology, not on aesthetics or literary criticism. Indeed, I appreciate junk as much as the next fellow, and I know full well that the printing press has generated enough of it to fill the Grand Canyon to overflowing. Television is not old enough to have matched printing's output of junk.

And so, I raise no objection to television's junk. The best things on television *are* its junk, and no one and nothing is seriously threatened by it. Besides, we do not measure a culture by its output of undisguised trivialities but by what it claims as significant. Therein is our problem, for television is at its most trivial and, therefore, most dangerous when its aspirations are high, when it presents itself as a carrier of important cultural conversations. The irony here is that this is what intellectuals and critics are constantly urging television to do. The trouble

with such people is that they do not take television seriously enough. For, like the printing press, television is nothing less than a philosophy of rhetoric. To talk seriously about television, one must therefore talk of epistemology. All other commentary is in itself trivial.

Epistemology is a complex and usually opaque subject concerned with the origins and nature of knowledge. The part of its subject matter that is relevant here is the interest it takes in definitions of truth and the sources from which such definitions come. In particular, I want to show that definitions of truth are derived, at least in part, from the character of the media of communication through which information is conveyed. I want to discuss how media are implicated in our epistemologies.

In the hope of simplifying what I mean by the title of this chapter, media as epistemology, I find it helpful to borrow a word from Northrop Frye, who has made use of a principle he calls *resonance*. "Through resonance," he writes, "a particular statement in a particular context acquires a universal significance."[1] Frye offers as an opening example the phrase "the grapes of wrath," which first appears in Isaiah in the context of a celebration of a prospective massacre of Edomites. But the phrase, Frye continues, "has long ago flown away from this context into many new contexts, contexts that give dignity to the human situation instead of merely reflecting its bigotries."[2] Having said this, Frye extends the idea of resonance so that it goes beyond phrases and sentences. A character in a play or story—Hamlet, for example, or Lewis Carroll's Alice—may have resonance. Objects may have resonance, and so may countries: "The smallest details of the geography of two tiny chopped-up countries, Greece and Israel, have imposed themselves on our consciousness until they have become part of the map of our own imaginative world, whether we have ever seen these countries or not."[3]

In addressing the question of the source of resonance, Frye concludes that metaphor is the generative force—that is, the

power of a phrase, a book, a character, or a history to unify and invest with meaning a variety of attitudes or experiences. Thus, Athens becomes a metaphor of intellectual excellence, wherever we find it; Hamlet, a metaphor of brooding indecisiveness; Alice's wanderings, a metaphor of a search for order in a world of semantic nonsense.

I now depart from Frye (who, I am certain, would raise no objection) but I take his word along with me. Every medium of communication, I am claiming, has resonance, for resonance is metaphor writ large. Whatever the original and limited context of its use may have been, a medium has the power to fly far beyond that context into new and unexpected ones. Because of the way it directs us to organize our minds and integrate our experience of the world, it imposes itself on our consciousness and social institutions in myriad forms. It sometimes has the power to become implicated in our concepts of piety, or goodness, or beauty. And it is always implicated in the ways we define and regulate our ideas of truth.

To explain how this happens—how the bias of a medium sits heavy, felt but unseen, over a culture—I offer three cases of truth-telling.

The first is drawn from a tribe in western Africa that has no writing system but whose rich oral tradition has given form to its ideas of civil law.[4] When a dispute arises, the complainants come before the chief of the tribe and state their grievances. With no written law to guide him, the task of the chief is to search through his vast repertoire of proverbs and sayings to find one that suits the situation and is equally satisfying to both complainants. That accomplished, all parties are agreed that justice has been done, that the truth has been served. You will recognize, of course, that this was largely the method of Jesus and other Biblical figures who, living in an essentially oral culture, drew upon all of the resources of speech, including mnemonic devices, formulaic expressions and parables, as a means of discovering and revealing truth. As Walter Ong points out, in

oral cultures proverbs and sayings are not occasional devices: "They are incessant. They form the substance of thought itself. Thought in any extended form is impossible without them, for it consists in them."[5]

To people like ourselves any reliance on proverbs and sayings is reserved largely for resolving disputes among or with children. "Possession is nine-tenths of the law." "First come, first served." "Haste makes waste." These are forms of speech we pull out in small crises with our young but would think ridiculous to produce in a courtroom where "serious" matters are to be decided. Can you imagine a bailiff asking a jury if it has reached a decision and receiving the reply that "to err is human but to forgive is divine"? Or even better, "Let us render unto Caesar that which is Caesar's and to God that which is God's"? For the briefest moment, the judge might be charmed but if a "serious" language form is not immediately forthcoming, the jury may end up with a longer sentence than most guilty defendants.

Judges, lawyers and defendants do not regard proverbs or sayings as a relevant response to legal disputes. In this, they are separated from the tribal chief by a media-metaphor. For in a print-based courtroom, where law books, briefs, citations and other written materials define and organize the method of finding the truth, the oral tradition has lost much of its resonance—but not all of it. Testimony is expected to be given orally, on the assumption that the spoken, not the written, word is a truer reflection of the state of mind of a witness. Indeed, in many courtrooms jurors are not permitted to take notes, nor are they given written copies of the judge's explanation of the law. Jurors are expected to *hear* the truth, or its opposite, not to read it. Thus, we may say that there is a clash of resonances in our concept of legal truth. On the one hand, there is a residual belief in the power of speech, and speech alone, to carry the truth; on the other hand, there is a much stronger belief in the authenticity of writing and, in particular, printing. This second belief

has little tolerance for poetry, proverbs, sayings, parables or any other expressions of oral wisdom. The law is what legislators and judges have written. In our culture, lawyers do not have to be wise; they need to be well briefed.

A similar paradox exists in universities, and with roughly the same distribution of resonances; that is to say, there are a few residual traditions based on the notion that speech is the primary carrier of truth. But for the most part, university conceptions of truth are tightly bound to the structure and logic of the printed word. To exemplify this point, I draw here on a personal experience that occurred during a still widely practiced medieval ritual known as a "doctoral oral." I use the word *medieval* literally, for in the Middle Ages students were always examined orally, and the tradition is carried forward in the assumption that a candidate must be able to talk competently about his written work. But, of course, the written work matters most.

In the case I have in mind, the issue of what is a legitimate form of truth-telling was raised to a level of consciousness rarely achieved. The candidate had included in his thesis a footnote, intended as documentation of a quotation, which read: "Told to the investigator at the Roosevelt Hotel on January 18, 1981, in the presence of Arthur Lingeman and Jerrold Gross." This citation drew the attention of no fewer than four of the five oral examiners, all of whom observed that it was hardly suitable as a form of documentation and that it ought to be replaced by a citation from a book or article. "You are not a journalist," one professor remarked. "You are supposed to be a scholar." Perhaps because the candidate knew of no published statement of what he was told at the Roosevelt Hotel, he defended himself vigorously on the grounds that there were witnesses to what he was told, that they were available to attest to the accuracy of the quotation, and that the form in which an idea is conveyed is irrelevant to its truth. Carried away on the wings of his eloquence, the candidate argued further that there were more than three hundred references to published works in his thesis and

that it was extremely unlikely that any of them would be checked for accuracy by the examiners, by which he meant to raise the question, Why do you *assume* the accuracy of a print-referenced citation but not a speech-referenced one?

The answer he received took the following line: You are mistaken in believing that the form in which an idea is conveyed is irrelevant to its truth. In the academic world, the published word is invested with greater prestige and authenticity than the spoken word. What people say is assumed to be more casually uttered than what they write. The written word is assumed to have been reflected upon and revised by its author, reviewed by authorities and editors. It is easier to verify or refute, and it is invested with an impersonal and objective character, which is why, no doubt, you have referred to yourself in your thesis as "the investigator" and not by your name; that is to say, the written word is, by its nature, addressed to the world, not an individual. The written word endures, the spoken word disappears; and that is why writing is closer to the truth than speaking. Moreover, we are sure you would prefer that this commission produce a written statement that you have passed your examination (should you do so) than for us merely to tell you that you have, and leave it at that. Our written statement would represent the "truth." Our oral agreement would be only a rumor.

The candidate wisely said no more on the matter except to indicate that he would make whatever changes the commission suggested and that he profoundly wished that should he pass the "oral," a written document would attest to that fact. He did pass, and in time the proper words were written.

A third example of the influence of media on our epistemologies can be drawn from the trial of the great Socrates. At the opening of Socrates' defense, addressing a jury of five hundred, he apologizes for not having a well-prepared speech. He tells his Athenian brothers that he will falter, begs that they not interrupt him on that account, asks that they regard him as they

would a stranger from another city, and promises that he will tell them the truth, without adornment or eloquence. Beginning this way was, of course, characteristic of Socrates, but it was not characteristic of the age in which he lived. For, as Socrates knew full well, his Athenian brothers did not regard the principles of rhetoric and the expression of truth to be independent of each other. People like ourselves find great appeal in Socrates' plea because we are accustomed to thinking of rhetoric as an ornament of speech—most often pretentious, superficial and unnecessary. But to the people who invented it, the Sophists of fifth-century B.C. Greece and their heirs, rhetoric was not merely an opportunity for dramatic performance but a near indispensable means of organizing evidence and proofs, and therefore of communicating truth.[6]

It was not only a key element in the education of Athenians (far more important than philosophy) but a preeminent art form. To the Greeks, rhetoric was a form of spoken writing. Though it always implied oral performance, its power to reveal the truth resided in the written word's power to display arguments in orderly progression. Although Plato himself disputed this conception of truth (as we might guess from Socrates' plea), his contemporaries believed that rhetoric was the proper means through which "right opinion" was to be both discovered and articulated. To disdain rhetorical rules, to speak one's thoughts in a random manner, without proper emphasis or appropriate passion, was considered demeaning to the audience's intelligence and suggestive of falsehood. Thus, we can assume that many of the 280 jurors who cast a guilty ballot against Socrates did so because his manner was not consistent with truthful matter, as they understood the connection.

The point I am leading to by this and the previous examples is that the concept of truth is intimately linked to the biases of forms of expression. Truth does not, and never has, come unadorned. It must appear in its proper clothing or it is not acknowledged, which is a way of saying that the "truth" is a kind

of cultural prejudice. Each culture conceives of it as being most authentically expressed in certain symbolic forms that another culture may regard as trivial or irrelevant. Indeed, to the Greeks of Aristotle's time, and for two thousand years afterward, scientific truth was best discovered and expressed by deducing the nature of things from a set of self-evident premises, which accounts for Aristotle's believing that women have fewer teeth than men, and that babies are healthier if conceived when the wind is in the north. Aristotle was twice married but so far as we know, it did not occur to him to ask either of his wives if he could count her teeth. And as for his obstetric opinions, we are safe in assuming he used no questionnaires and hid behind no curtains. Such acts would have seemed to him both vulgar and unnecessary, for that was not the way to ascertain the truth of things. The language of deductive logic provided a surer road.

We must not be too hasty in mocking Aristotle's prejudices. We have enough of our own, as for example, the equation we moderns make of truth and quantification. In this prejudice, we come astonishingly close to the mystical beliefs of Pythagoras and his followers who attempted to submit all of life to the sovereignty of numbers. Many of our psychologists, sociologists, economists and other latter-day cabalists will have numbers to tell them the truth or they will have nothing. Can you imagine, for example, a modern economist articulating truths about our standard of living by reciting a poem? Or by telling what happened to him during a late-night walk through East St. Louis? Or by offering a series of proverbs and parables, beginning with the saying about a rich man, a camel, and the eye of a needle? The first would be regarded as irrelevant, the second merely anecdotal, the last childish. Yet these forms of language are certainly capable of expressing truths about economic relationships, as well as any other relationships, and indeed have been employed by various peoples. But to the modern mind, resonating with different media-metaphors, the truth in economics is believed to be best discovered and expressed in numbers. Per-

haps it is. I will not argue the point. I mean only to call attention to the fact that there is a certain measure of arbitrariness in the forms that truth-telling may take. We must remember that Galileo merely said that the language of *nature* is written in mathematics. He did not say *everything* is. And even the truth about nature need not be expressed in mathematics. For most of human history, the language of nature has been the language of myth and ritual. These forms, one might add, had the virtues of leaving nature unthreatened and of encouraging the belief that human beings are part of it. It hardly befits a people who stand ready to blow up the planet to praise themselves too vigorously for having found the true way to talk about nature.

In saying this, I am not making a case for epistemological relativism. Some ways of truth-telling are better than others, and therefore have a healthier influence on the cultures that adopt them. Indeed, I hope to persuade you that the decline of a print-based epistemology and the accompanying rise of a television-based epistemology has had grave consequences for public life, that we are getting sillier by the minute. And that is why it is necessary for me to drive hard the point that the weight assigned to any form of truth-telling is a function of the influence of media of communication. "Seeing is believing" has always had a preeminent status as an epistemological axiom, but "saying is believing," "reading is believing," "counting is believing," "deducing is believing," and "feeling is believing" are others that have risen or fallen in importance as cultures have undergone media change. As a culture moves from orality to writing to printing to televising, its ideas of truth move with it. Every philosophy is the philosophy of a stage of life, Nietzsche remarked. To which we might add that every epistemology is the epistemology of a stage of media development. Truth, like time itself, is a product of a conversation man has with himself about and through the techniques of communication he has invented.

Since intelligence is primarily defined as one's capacity to

grasp the truth of things, it follows that what a culture means by intelligence is derived from the character of its important forms of communication. In a purely oral culture, intelligence is often associated with aphoristic ingenuity, that is, the power to invent compact sayings of wide applicability. The wise Solomon, we are told in First Kings, knew three thousand proverbs. In a print culture, people with such a talent are thought to be quaint at best, more likely pompous bores. In a purely oral culture, a high value is always placed on the power to memorize, for where there are no written words, the human mind must function as a mobile library. To forget how something is to be said or done is a danger to the community and a gross form of stupidity. In a print culture, the memorization of a poem, a menu, a law or most anything else is merely charming. It is almost always functionally irrelevant and certainly not considered a sign of high intelligence.

Although the general character of print-intelligence would be known to anyone who would be reading this book, you may arrive at a reasonably detailed definition of it by simply considering what is demanded of you *as you read this book.* You are required, first of all, to remain more or less immobile for a fairly long time. If you cannot do this (with this or any other book), our culture may label you as anything from hyperkinetic to undisciplined; in any case, as suffering from some sort of intellectual deficiency. The printing press makes rather stringent demands on our bodies as well as our minds. Controlling your body is, however, only a minimal requirement. You must also have learned to pay no attention to the shapes of the letters on the page. You must see through them, so to speak, so that you can go directly to the meanings of the words they form. If you are preoccupied with the shapes of the letters, you will be an intolerably inefficient reader, likely to be thought stupid. If you have learned how to get to meanings without aesthetic distraction, you are required to assume an attitude of detachment and objectivity. This includes your bringing to the task what

Bertrand Russell called an "immunity to eloquence," meaning that you are able to distinguish between the sensuous pleasure, or charm, or ingratiating tone (if such there be) of the words, and the logic of their argument. But at the same time, you must be able to tell from the tone of the language what is the author's attitude toward the subject and toward the reader. You must, in other words, know the difference between a joke and an argument. And in judging the quality of an argument, you must be able to do several things at once, including delaying a verdict until the entire argument is finished, holding in mind questions until you have determined where, when or if the text answers them, and bringing to bear on the text all of your relevant experience as a counterargument to what is being proposed. You must also be able to withhold those parts of your knowledge and experience which, in fact, do not have a bearing on the argument. And in preparing yourself to do all of this, you must have divested yourself of the belief that words are magical and, above all, have learned to negotiate the world of abstractions, for there are very few phrases and sentences in this book that require you to call forth concrete images. In a print-culture, we are apt to say of people who are not intelligent that we must "draw them pictures" so that they may understand. Intelligence implies that one can dwell comfortably without pictures, in a field of concepts and generalizations.

To be able to do all of these things, and more, constitutes a primary definition of intelligence in a culture whose notions of truth are organized around the printed word. In the next two chapters I want to show that in the eighteenth and nineteenth centuries, America was such a place, perhaps the most print-oriented culture ever to have existed. In subsequent chapters, I want to show that in the twentieth century, our notions of truth and our ideas of intelligence have changed as a result of new media displacing the old.

But I do not wish to oversimplify the matter more than is necessary. In particular, I want to conclude by making three

points that may serve as a defense against certain counterarguments that careful readers may have already formed.

The first is that at no point do I care to claim that changes in media bring about changes in the structure of people's minds or changes in their cognitive capacities. There are some who make this claim, or come close to it (for example, Jerome Bruner, Jack Goody, Walter Ong, Marshall McLuhan, Julian Jaynes, and Eric Havelock).[7] I am inclined to think they are right, but my argument does not require it. Therefore, I will not burden myself with arguing the possibility, for example, that oral people are less developed intellectually, in some Piagetian sense, than writing people, or that "television" people are less developed intellectually than either. My argument is limited to saying that a major new medium changes the structure of discourse; it does so by encouraging certain uses of the intellect, by favoring certain definitions of intelligence and wisdom, and by demanding a certain kind of content—in a phrase, by creating new forms of truth-telling. I will say once again that I am no relativist in this matter, and that I believe the epistemology created by television not only is inferior to a print-based epistemology but is dangerous and absurdist.

The second point is that the epistemological shift I have intimated, and will describe in detail, has not yet included (and perhaps never will include) everyone and everything. While some old media do, in fact, disappear (e.g., pictographic writing and illuminated manuscripts) and with them, the institutions and cognitive habits they favored, other forms of conversation will always remain. Speech, for example, and writing. Thus the epistemology of new forms such as television does not have an entirely unchallenged influence.

I find it useful to think of the situation in this way: Changes in the symbolic environment are like changes in the natural environment; they are both gradual and additive at first, and then, all at once, a critical mass is achieved, as the physicists say. A river that has slowly been polluted suddenly becomes

toxic; most of the fish perish; swimming becomes a danger to health. But even then, the river may look the same and one may still take a boat ride on it. In other words, even when life has been taken from it, the river does not disappear, nor do all of its uses, but its value has been seriously diminished and its degraded condition will have harmful effects throughout the landscape. It is this way with our symbolic environment. We have reached, I believe, a critical mass in that electronic media have decisively and irreversibly changed the character of our symbolic environment. We are now a culture whose information, ideas and epistemology are given form by television, not by the printed word. To be sure, there are still readers and there are many books published, but the uses of print and reading are not the same as they once were; not even in schools, the last institutions where print was thought to be invincible. They delude themselves who believe that television and print coexist, for coexistence implies parity. There is no parity here. Print is now merely a residual epistemology, and it will remain so, aided to some extent by the computer, and newspapers and magazines that are made to look like television screens. Like the fish who survive a toxic river and the boatmen who sail on it, there still dwell among us those whose sense of things is largely influenced by older and clearer waters.

The third point is that in the analogy I have drawn above, the river refers largely to what we call public discourse—our political, religious, informational and commercial forms of conversation. I am arguing that a television-based epistemology pollutes public communication and its surrounding landscape, not that it pollutes everything. In the first place, I am constantly reminded of television's value as a source of comfort and pleasure to the elderly, the infirm and, indeed, all people who find themselves alone in motel rooms. I am also aware of television's potential for creating a theater for the masses (a subject which in my opinion has not been taken seriously enough). There are also claims that whatever power television might have to un-

dermine rational discourse, its emotional power is so great that it could arouse sentiment against the Vietnam War or against more virulent forms of racism. These and other beneficial possibilities are not to be taken lightly.

But there is still another reason why I should not like to be understood as making a total assault on television. Anyone who is even slightly familiar with the history of communications knows that every new technology for thinking involves a trade-off. It giveth and taketh away, although not quite in equal measure. Media change does not necessarily result in equilibrium. It sometimes creates more than it destroys. Sometimes, it is the other way around. We must be careful in praising or condemning because the future may hold surprises for us. The invention of the printing press itself is a paradigmatic example. Typography fostered the modern idea of individuality, but it destroyed the medieval sense of community and integration. Typography created prose but made poetry into an exotic and elitist form of expression. Typography made modern science possible but transformed religious sensibility into mere superstition. Typography assisted in the growth of the nation-state but thereby made patriotism into a sordid if not lethal emotion.

Obviously, my point of view is that the four-hundred-year imperial dominance of typography was of far greater benefit than deficit. Most of our modern ideas about the uses of the intellect were formed by the printed word, as were our ideas about education, knowledge, truth and information. I will try to demonstrate that as typography moves to the periphery of our culture and television takes its place at the center, the seriousness, clarity and, above all, value of public discourse dangerously declines. On what benefits may come from other directions, one must keep an open mind.

10.

Teaching as an Amusing Activity

There could not have been a safer bet when it began in 1969 than that "Sesame Street" would be embraced by children, parents and educators. Children loved it because they were raised on television commercials, which they intuitively knew were the most carefully crafted entertainments on television. To those who had not yet been to school, even to those who had just started, the idea of being *taught* by a series of commercials did not seem peculiar. And that television should entertain them was taken as a matter of course.

Parents embraced "Sesame Street" for several reasons, among them that it assuaged their guilt over the fact that they could not or would not restrict their children's access to television. "Sesame Street" appeared to justify allowing a four- or five-year-old to sit transfixed in front of a television screen for unnatural periods of time. Parents were eager to hope that television could teach their children something other than which breakfast cereal has the most crackle. At the same time, "Sesame Street" relieved them of the responsibility of teaching their pre-school children how to read—no small matter in a culture where children are apt to be considered a nuisance. They could also plainly see that in spite of its faults, "Sesame Street" was entirely consonant with the prevailing spirit of America. Its use of cute puppets, celebrities, catchy tunes, and rapid-fire editing was certain to give pleasure to the children and would therefore serve as adequate preparation for their entry into a fun-loving culture.

As for educators, they generally approved of "Sesame Street," too. Contrary to common opinion, they are apt to find new methods congenial, especially if they are told that education can be accomplished more efficiently by means of the new techniques. (That is why such ideas as "teacher-proof" textbooks, standardized tests, and, now, micro-computers have been welcomed into the classroom.) "Sesame Street" appeared to be an imaginative aid in solving the growing problem of teaching Americans how to read, while, at the same time, encouraging children to love school.

We now know that "Sesame Street" encourages children to love school only if school is like "Sesame Street." Which is to say, we now know that "Sesame Street" undermines what the traditional idea of schooling represents. Whereas a classroom is a place of social interaction, the space in front of a television set is a private preserve. Whereas in a classroom, one may ask a teacher questions, one can ask nothing of a television screen. Whereas school is centered on the development of language, television demands attention to images. Whereas attending school is a legal requirement, watching television is an act of choice. Whereas in school, one fails to attend to the teacher at the risk of punishment, no penalties exist for failing to attend to the television screen. Whereas to behave oneself in school means to observe rules of public decorum, television watching requires no such observances, has no concept of public decorum. Whereas in a classroom, fun is never more than a means to an end, on television it is the end in itself.

Yet "Sesame Street" and its progeny, "The Electric Company," are not to be blamed for laughing the traditional classroom out of existence. If the classroom now begins to seem a stale and flat environment for learning, the inventors of television itself are to blame, not the Children's Television Workshop. We can hardly expect those who want to make good television shows to concern themselves with what the classroom is for. They are concerned with what television is for. This

does not mean that "Sesame Street" is not educational. It is, in fact, nothing but educational—in the sense that every television show is educational. Just as reading a book—any kind of book—promotes a particular orientation toward learning, watching a television show does the same. "The Little House on the Prairie," "Cheers" and "The Tonight Show" are as effective as "Sesame Street" in promoting what might be called the television style of learning. And this style of learning is, by its nature, hostile to what has been called book-learning or its handmaiden, school-learning. If we are to blame "Sesame Street" for anything, it is for the pretense that it is any ally of the classroom. That, after all, has been its chief claim on foundation and public money. As a television show, and a good one, "Sesame Street" does not encourage children to love school or anything about school. It encourages them to love television.

Moreover, it is important to add that whether or not "Sesame Street" teaches children their letters and numbers is entirely irrelevant. We may take as our guide here John Dewey's observation that the content of a lesson is the least important thing about learning. As he wrote in *Experience and Education:* "Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only what he is studying at the time. Collateral learning in the way of formation of enduring attitudes . . . may be and often is more important than the spelling lesson or lesson in geography or history. . . . For these attitudes are fundamentally what count in the future."[1] In other words, the most important thing one learns is always something about *how* one learns. As Dewey wrote in another place, we learn what we do. Television educates by teaching children to do what television-viewing requires of them. And that is as precisely remote from what a classroom requires of them as reading a book is from watching a stage show.

Although one would not know it from consulting various recent proposals on how to mend the educational system, this point—that reading books and watching television differ en-

tirely in what they imply about learning—is the primary educational issue in America today. America is, in fact, the leading case in point of what may be thought of as the third great crisis in Western education. The first occurred in the fifth century B.C., when Athens underwent a change from an oral culture to an alphabet-writing culture. To understand what this meant, we must read Plato. The second occurred in the sixteenth century, when Europe underwent a radical transformation as a result of the printing press. To understand what this meant, we must read John Locke. The third is happening now, in America, as a result of the electronic revolution, particularly the invention of television. To understand what this means, we must read Marshall McLuhan.

We face the rapid dissolution of the assumptions of an education organized around the slow-moving printed word, and the equally rapid emergence of a new education based on the speed-of-light electronic image. The classroom is, at the moment, still tied to the printed word, although that connection is rapidly weakening. Meanwhile, television forges ahead, making no concessions to its great technological predecessor, creating new conceptions of knowledge and how it is acquired. One is entirely justified in saying that the major educational enterprise now being undertaken in the United States is not happening in its classrooms but in the home, in front of the television set, and under the jurisdiction not of school administrators and teachers but of network executives and entertainers. I don't mean to imply that the situation is a result of a conspiracy or even that those who control television want this responsibility. I mean only to say that, like the alphabet or the printing press, television has by its power to control the time, attention and cognitive habits of our youth gained the power to control their education.

This is why I think it accurate to call television a curriculum. As I understand the word, a curriculum is a specially constructed information system whose purpose is to influence,

teach, train or cultivate the mind and character of youth. Television, of course, does exactly that, and does it relentlessly. In so doing, it competes successfully with the school curriculum. By which I mean, it damn near obliterates it.

Having devoted an earlier book, *Teaching as a Conserving Activity*, to a detailed examination of the antagonistic nature of the two curriculums—television and school—I will not burden the reader or myself with a repetition of that analysis. But I would like to recall two points that I feel I did not express forcefully enough in that book and that happen to be central to this one. I refer, first, to the fact that television's principal contribution to educational philosophy is the idea that teaching and entertainment are inseparable. This entirely original conception is to be found nowhere in educational discourses, from Confucius to Plato to Cicero to Locke to John Dewey. In searching the literature of education, you will find it said by some that children will learn best when they are interested in what they are learning. You will find it said—Plato and Dewey emphasized this—that reason is best cultivated when it is rooted in robust emotional ground. You will even find some who say that learning is best facilitated by a loving and benign teacher. But no one has ever said or implied that significant learning is effectively, durably and truthfully achieved when education is entertainment. Education philosophers have assumed that becoming acculturated is difficult because it necessarily involves the imposition of restraints. They have argued that there must be a sequence to learning, that perseverance and a certain measure of perspiration are indispensable, that individual pleasures must frequently be submerged in the interests of group cohesion, and that learning to be critical and to think conceptually and rigorously do not come easily to the young but are hard-fought victories. Indeed, Cicero remarked that the purpose of education is to free the student from the tyranny of the present, which cannot be pleasurable for those, like the young, who are struggling

hard to do the opposite—that is, accommodate themselves to the present.

Television offers a delicious and, as I have said, original alternative to all of this. We might say there are three commandments that form the philosophy of the education which television offers. The influence of these commandments is observable in every type of television programming—from "Sesame Street" to the documentaries of "Nova" and "The National Geographic" to "Fantasy Island" to MTV. The commandments are as follows:

Thou shalt have no prerequisites

Every television program must be a complete package in itself. No previous knowledge is to be required. There must not be even a hint that learning is hierarchical, that it is an edifice constructed on a foundation. The learner must be allowed to enter at any point without prejudice. This is why you shall never hear or see a television program begin with the caution that if the viewer has not seen the previous programs, this one will be meaningless. Television is a nongraded curriculum and excludes no viewer for any reason, at any time. In other words, in doing away with the idea of sequence and continuity in education, television undermines the idea that sequence and continuity have anything to do with thought itself.

Thou shalt induce no perplexity

In television teaching, perplexity is a superhighway to low ratings. A perplexed learner is a learner who will turn to another station. This means that there must be nothing that has to be remembered, studied, applied or, worst of all, endured. It is assumed that any information, story or idea can be made imme-

diately accessible, since the contentment, not the growth, of the learner is paramount.

Thou shalt avoid exposition like the ten plagues visited upon Egypt

Of all the enemies of television-teaching, including continuity and perplexity, none is more formidable than exposition. Arguments, hypotheses, discussions, reasons, refutations or any of the traditional instruments of reasoned discourse turn television into radio or, worse, third-rate printed matter. Thus, television-teaching always takes the form of story-telling, conducted through dynamic images and supported by music. This is as characteristic of "Star Trek" as it is of "Cosmos," of "Diff'rent Strokes" as of "Sesame Street," of commercials as of "Nova." Nothing will be taught on television that cannot be both visualized and placed in a theatrical context.

The name we may properly give to an education without prerequisites, perplexity and exposition is entertainment. And when one considers that save for sleeping there is no activity that occupies more of an American youth's time than television-viewing, we cannot avoid the conclusion that a massive reorientation toward learning is now taking place. Which leads to the second point I wish to emphasize: The consequences of this reorientation are to be observed not only in the decline of the potency of the classroom but, paradoxically, in the refashioning of the classroom into a place where both teaching and learning are intended to be vastly amusing activities.

I have already referred to the experiment in Philadelphia in which the classroom is reconstituted as a rock concert. But this is only the silliest example of an attempt to define education as a mode of entertainment. Teachers, from primary grades through college, are increasing the visual stimulation of their lessons; are reducing the amount of exposition their students must cope with; are relying less on reading and writing assign-

ments; and are reluctantly concluding that the principal means by which student interest may be engaged is entertainment. With no difficulty I could fill the remaining pages of this chapter with examples of teachers' efforts—in some instances, unconscious—to make their classrooms into second-rate television shows. But I will rest my case with "The Voyage of the Mimi," which may be taken as a synthesis, if not an apotheosis, of the New Education. "The Voyage of the Mimi" is the name of an expensive science and mathematics project that has brought together some of the most prestigious institutions in the field of education—the United States Department of Education, the Bank Street College of Education, the Public Broadcasting System, and the publishing firm Holt, Rinehart and Winston. The project was made possible by a $3.65 million grant from the Department of Education, which is always on the alert to put its money where the future is. And the future is "The Voyage of the Mimi." To describe the project succinctly, I quote from four paragraphs in *The New York Times* of August 7, 1984:

> Organized around a twenty-six-unit television series that depicts the adventures of a floating whale-research laboratory, [the project] combines television viewing with lavishly illustrated books and computer games that simulate the way scientists and navigators work. . . .
>
> "The Voyage of the Mimi" is built around fifteen-minute television programs that depict the adventures of four young people who accompany two scientists and a crusty sea captain on a voyage to monitor the behavior of humpback whales off the coast of Maine. The crew of the converted tuna trawler navigates the ship, tracks down the whales and struggles to survive on an uninhabited island after a storm damages the ship's hull. . . .
>
> Each dramatic episode is then followed by a fifteen-minute documentary on related themes. One such documentary involved a visit by one of the teen-age actors to Ted Taylor, a nuclear physicist in Greenport, L.I., who has devised a way of purifying sea water by freezing it.

> The television programs, which teachers are free to record off the air and use at their convenience, are supplemented by a series of books and computer exercises that pick up four academic themes that emerge naturally from the story line: map and navigational skills, whales and their environment, ecological systems and computer literacy.

The television programs have been broadcast over PBS; the books and computer software have been provided by Holt, Rinehart and Winston; the educational expertise by the faculty of the Bank Street College. Thus, "The Voyage of the Mimi" is not to be taken lightly. As Frank Withrow of the Department of Education remarked, "We consider it the flagship of what we are doing. It is a model that others will begin to follow." Everyone involved in the project is enthusiastic, and extraordinary claims of its benefits come trippingly from their tongues. Janice Trebbi Richards of Holt, Rinehart and Winston asserts, "Research shows that learning increases when information is presented in a dramatic setting, and television can do this better than any other medium." Officials of the Department of Education claim that the appeal of integrating three media—television, print, and computers—lies in their potential for cultivating higher-order thinking skills. And Mr. Withrow is quoted as saying that projects like "The Voyage of the Mimi" could mean great financial savings, that in the long run "it is cheaper than anything else we do." Mr. Withrow also suggested that there are many ways of financing such projects. "With 'Sesame Street,'" he said, "it took five or six years, but eventually you can start bringing in the money with T-shirts and cookie jars."

We may start thinking about what "The Voyage of the Mimi" signifies by recalling that the idea is far from original. What is here referred to as "integrating three media" or a "multi-media presentation" was once called "audio-visual aids," used by teachers for years, usually for the modest purpose of enhancing

student interest in the curriculum. Moreover, several years ago, the Office of Education (as the Department was then called) supplied funds to WNET for a similarly designed project called "Watch Your Mouth," a series of television dramatizations in which young people inclined to misuse the English language fumbled their way through a variety of social problems. Linguists and educators prepared lessons for teachers to use in conjunction with each program. The dramatizations were compelling—although not nearly as good as "Welcome Back, Kotter," which had the unassailable advantage of John Travolta's charisma—but there exists no evidence that students who were required to view "Watch Your Mouth" increased their competence in the use of the English language. Indeed, since there is no shortage of mangled English on everyday commercial television, one wondered at the time why the United States government would have paid anyone to go to the trouble of producing additional ineptitudes as a source of classroom study. A videotape of any of David Susskind's programs would provide an English teacher with enough linguistic aberrations to fill a semester's worth of analysis.

Nonetheless, the Department of Education has forged ahead, apparently in the belief that ample evidence—to quote Ms. Richards again—"shows that learning increases when information is presented in a dramatic setting, and that television can do this better than any other medium." The most charitable response to this claim is that it is misleading. George Comstock and his associates have reviewed 2,800 studies on the general topic of television's influence on behavior, including cognitive processing, and are unable to point to persuasive evidence that "learning increases when information is presented in a dramatic setting."[2] Indeed, in studies conducted by Cohen and Salomon; Meringoff; Jacoby, Hoyer and Sheluga; Stauffer, Frost and Rybolt; Stern; Wilson; Neuman; Katz, Adoni and Parness; and Gunter, quite the opposite conclusion is justified.[3] Jacoby et al. found, for example, that only 3.5 percent of viewers were

able to answer successfully twelve true/false questions concerning two thirty-second segments of commercial television programs and advertisements. Stauffer et al. found in studying students' responses to a news program transmitted via television, radio and print, that print significantly increased correct responses to questions regarding the names of people and numbers contained in the material. Stern reported that 51 percent of viewers could not recall a single item of news a few minutes after viewing a news program on television. Wilson found that the average television viewer could retain only 20 percent of the information contained in a fictional televised news story. Katz et al. found that 21 percent of television viewers could not recall any news items within one hour of broadcast. On the basis of his and other studies, Salomon has concluded that "the meanings secured from television are more likely to be segmented, concrete and less inferential, and those secured from reading have a higher likelihood of being better tied to one's stored knowledge and thus are more likely to be inferential."[4] In other words, so far as many reputable studies are concerned, television viewing does not significantly increase learning, is inferior to and less likely than print to cultivate higher-order, inferential thinking.

But one must not make too much of the rhetoric of grantsmanship. We are all inclined to transform our hopes into tenuous claims when an important project is at stake. Besides, I have no doubt that Ms. Richards can direct us to several studies that lend support to her enthusiasm. The point is that if you want money for the redundant purpose of getting children to watch even more television than they already do—and dramatizations at that—you have to escalate the rhetoric to Herculean proportions.

What is of greatest significance about "The Voyage of the Mimi" is that the content selected was obviously chosen because it is eminently *televisible*. Why are these students studying the behavior of humpback whales? How critical is it that the

"academic themes" of navigational and map-reading skills be learned? Navigational skills have never been considered an "academic theme" and in fact seem singularly inappropriate for most students in big cities. Why has it been decided that "whales and their environment" is a subject of such compelling interest that an entire year's work should be given to it?

I would suggest that "The Voyage of the Mimi" was conceived by someone's asking the question, What is television good for?, not, What is education good for? Television is good for dramatizations, shipwrecks, seafaring adventures, crusty old sea captains, and physicists being interviewed by actor-celebrities. And that, of course, is what we have got in "The Voyage of the Mimi." The fact that this adventure sit-com is accompanied by lavishly illustrated books and computer games only underscores that the television presentation controls the curriculum. The books whose pictures the students will scan and the computer games the students will play are dictated by the content of the television shows, not the other way around. Books, it would appear, have now become an audio-visual aid; the principal carrier of the content of education is the television show, and its principal claim for a preeminent place in the curriculum is that it is entertaining. Of course, a television production can be used to stimulate interest in lessons, or even as the focal point of a lesson. But what is happening here is that the content of the school curriculum is being determined by the character of television, and even worse, that character is apparently not included as part of what is studied. One would have thought that the school room is the proper place for students to inquire into the ways in which media of all kinds—including television—shape people's attitudes and perceptions. Since our students will have watched approximately sixteen thousand hours of television by high school's end, questions should have arisen, even in the minds of officials at the Department of Education, about who will teach our students how to look at television, and when not to, and with what critical equipment when

they do. "The Voyage of the Mimi" project bypasses these questions; indeed, hopes that the students will immerse themselves in the dramatizations in the same frame of mind used when watching "St. Elsewhere" or "Hill Street Blues." (One may also assume that what is called "computer literacy" does not involve raising questions about the cognitive biases and social effects of the computer, which, I would venture, are the most important questions to address about new technologies.)

"The Voyage of the Mimi," in other words, spent $3.65 million for the purpose of using media in exactly the manner that media merchants want them to be used—mindlessly and invisibly, as if media themselves have no epistemological or political agenda. And, in the end, what will the students have learned? They will, to be sure, have learned something about whales, perhaps about navigation and map reading, most of which they could have learned just as well by other means. Mainly, they will have learned that learning is a form of entertainment or, more precisely, that anything worth learning can take the form of an entertainment, and ought to. And they will not rebel if their English teacher asks them to learn the eight parts of speech through the medium of rock music. Or if their social studies teacher sings to them the facts about the War of 1812. Or if their physics comes to them on cookies and T-shirts. Indeed, they will expect it and thus will be well prepared to receive their politics, their religion, their news and their commerce in the same delightful way.

II.

The Huxleyan Warning

There are two ways by which the spirit of a culture may be shriveled. In the first—the Orwellian—culture becomes a prison. In the second—the Huxleyan—culture becomes a burlesque.

No one needs to be reminded that our world is now marred by many prison-cultures whose structure Orwell described accurately in his parables. If one were to read both *1984* and *Animal Farm,* and then for good measure, Arthur Koestler's *Darkness at Noon,* one would have a fairly precise blueprint of the machinery of thought-control as it currently operates in scores of countries and on millions of people. Of course, Orwell was not the first to teach us about the spiritual devastations of tyranny. What is irreplaceable about his work is his insistence that it makes little difference if our wardens are inspired by right- or left-wing ideologies. The gates of the prison are equally impenetrable, surveillance equally rigorous, icon-worship equally pervasive.

What Huxley teaches is that in the age of advanced technology, spiritual devastation is more likely to come from an enemy with a smiling face than from one whose countenance exudes suspicion and hate. In the Huxleyan prophecy, Big Brother does not watch us, by his choice. We watch him, by ours. There is no need for wardens or gates or Ministries of Truth. When a population becomes distracted by trivia, when cultural life is redefined as a perpetual round of entertainments, when serious public conversation becomes a form of baby-talk, when, in

short, a people become an audience and their public business a vaudeville act, then a nation finds itself at risk; culture-death is a clear possibility.

In America, Orwell's prophecies are of small relevance, but Huxley's are well under way toward being realized. For America is engaged in the world's most ambitious experiment to accommodate itself to the technological distractions made possible by the electric plug. This is an experiment that began slowly and modestly in the mid-nineteenth century and has now, in the latter half of the twentieth, reached a perverse maturity in America's consuming love-affair with television. As nowhere else in the world, Americans have moved far and fast in bringing to a close the age of the slow-moving printed word, and have granted to television sovereignty over all of their institutions. By ushering in the Age of Television, America has given the world the clearest available glimpse of the Huxleyan future.

Those who speak about this matter must often raise their voices to a near-hysterical pitch, inviting the charge that they are everything from wimps to public nuisances to Jeremiahs. But they do so because what they want others to see appears benign, when it is not invisible altogether. An Orwellian world is much easier to recognize, and to oppose, than a Huxleyan. Everything in our background has prepared us to know and resist a prison when the gates begin to close around us. We are not likely, for example, to be indifferent to the voices of the Sakharovs and the Timmermans and the Walesas. We take arms against such a sea of troubles, buttressed by the spirit of Milton, Bacon, Voltaire, Goethe and Jefferson. But what if there are no cries of anguish to be heard? Who is prepared to take arms against a sea of amusements? To whom do we complain, and when, and in what tone of voice, when serious discourse dissolves into giggles? What is the antidote to a culture's being drained by laughter?

I fear that our philosophers have given us no guidance in this

matter. Their warnings have customarily been directed against those consciously formulated ideologies that appeal to the worst tendencies in human nature. But what is happening in America is not the design of an articulated ideology. No *Mein Kampf* or *Communist Manifesto* announced its coming. It comes as the unintended consequence of a dramatic change in our modes of public conversation. But it is an ideology nonetheless, for it imposes a way of life, a set of relations among people and ideas, about which there has been no consensus, no discussion and no opposition. Only compliance. Public consciousness has not yet assimilated the point that technology is ideology. This, in spite of the fact that before our very eyes technology has altered every aspect of life in America during the past eighty years. For example, it would have been excusable in 1905 for us to be unprepared for the cultural changes the automobile would bring. Who could have suspected then that the automobile would tell us how we were to conduct our social and sexual lives? Would reorient our ideas about what to do with our forests and cities? Would create new ways of expressing our personal identity and social standing?

But it is much later in the game now, and ignorance of the score is inexcusable. To be unaware that a technology comes equipped with a program for social change, to maintain that technology is neutral, to make the assumption that technology is always a friend to culture is, at this late hour, stupidity plain and simple. Moreover, we have seen enough by now to know that technological changes in our modes of communication are even more ideology-laden than changes in our modes of transportation. Introduce the alphabet to a culture and you change its cognitive habits, its social relations, its notions of community, history and religion. Introduce the printing press with movable type, and you do the same. Introduce speed-of-light transmission of images and you make a cultural revolution. Without a vote. Without polemics. Without guerrilla resistance. Here is ideology, pure if not serene. Here is ideology without

words, and all the more powerful for their absence. All that is required to make it stick is a population that devoutly believes in the inevitability of progress. And in this sense, all Americans are Marxists, for we believe nothing if not that history is moving us toward some preordained paradise and that technology is the force behind that movement.

Thus, there are near insurmountable difficulties for anyone who has written such a book as this, and who wishes to end it with some remedies for the affliction. In the first place, not everyone believes a cure is needed, and in the second, there probably isn't any. But as a true-blue American who has imbibed the unshakable belief that where there is a problem, there must be a solution, I shall conclude with the following suggestions.

We must, as a start, not delude ourselves with preposterous notions such as the straight Luddite position as outlined, for example, in Jerry Mander's *Four Arguments for the Elimination of Television*. Americans will not shut down any part of their technological apparatus, and to suggest that they do so is to make no suggestion at all. It is almost equally unrealistic to expect that nontrivial modifications in the availability of media will ever be made. Many civilized nations limit by law the amount of hours television may operate and thereby mitigate the role television plays in public life. But I believe that this is not a possibility in America. Once having opened the Happy Medium to full public view, we are not likely to countenance even its partial closing. Still, some Americans have been thinking along these lines. As I write, a story appears in *The New York Times* (September 27, 1984) about the plans of the Farmington, Connecticut, Library Council to sponsor a "TV Turnoff." It appears that such an effort was made the previous year, the idea being to get people to stop watching television for one month. The *Times* reports that the turnoff the previous January was widely noted by the media. Ms. Ellen Babcock, whose family participated, is quoted as saying, "It will be interesting to see if the

impact is the same this year as last year, when we had terrific media coverage." In other words, Ms. Babcock hopes that by watching television, people will learn that they ought to stop watching television. It is hard to imagine that Ms. Babcock does not see the irony in this position. It is an irony that I have confronted many times in being told that I must appear on television to promote a book that warns people against television. Such are the contradictions of a television-based culture.

In any case, of how much help is a one-month turnoff? It is a mere pittance; that is to say, a penance. How comforting it must be when the folks in Farmington are done with their punishment and can return to their true occupation. Nonetheless, one applauds their effort, as one must applaud the efforts of those who see some relief in limiting certain kinds of content on television—for example, excessive violence, commercials on children's shows, etc. I am particularly fond of John Lindsay's suggestion that political commercials be banned from television as we now ban cigarette and liquor commercials. I would gladly testify before the Federal Communications Commission as to the manifold merits of this excellent idea. To those who would oppose my testimony by claiming that such a ban is a clear violation of the First Amendment, I would offer a compromise: Require all political commercials to be preceded by a short statement to the effect that common sense has determined that watching political commercials is hazardous to the intellectual health of the community.

I am not very optimistic about anyone's taking this suggestion seriously. Neither do I put much stock in proposals to improve the quality of television programs. Television, as I have implied earlier, serves us most usefully when presenting junk-entertainment; it serves us most ill when it co-opts serious modes of discourse—news, politics, science, education, commerce, religion—and turns them into entertainment packages. We would all be better off if television got worse, not better.

"The A-Team" and "Cheers" are no threat to our public health. "60 Minutes," "Eye-Witness News" and "Sesame Street" are.

The problem, in any case, does not reside in *what* people watch. The problem is in *that* we watch. The solution must be found in *how* we watch. For I believe it may fairly be said that we have yet to learn what television is. And the reason is that there has been no worthwhile discussion, let alone widespread public understanding, of what information is and how it gives direction to a culture. There is a certain poignancy in this, since there are no people who more frequently and enthusiastically use such phrases as "the information age," "the information explosion," and "the information society." We have apparently advanced to the point where we have grasped the idea that a change in the forms, volume, speed and context of information *means* something, but we have not got any further.

What is information? Or more precisely, what *are* information? What are its various forms? What conceptions of intelligence, wisdom and learning does each form insist upon? What conceptions does each form neglect or mock? What are the main psychic effects of each form? What is the relation between information and reason? What is the kind of information that best facilitates thinking? Is there a moral bias to each information form? What does it mean to say that there is too much information? How would one know? What redefinitions of important cultural meanings do new sources, speeds, contexts and forms of information require? Does television, for example, give a new meaning to "piety," to "patriotism," to "privacy"? Does television give a new meaning to "judgment" or to "understanding"? How do different forms of information persuade? Is a newspaper's "public" different from television's "public"? How do different information forms dictate the type of content that is expressed?

These questions, and dozens more like them, are the means through which it might be possible for Americans to begin talking back to their television sets, to use Nicholas Johnson's

phrase. For no medium is excessively dangerous if its users understand what its dangers are. It is not important that those who ask the questions arrive at my answers or Marshall McLuhan's (quite different answers, by the way). This is an instance in which the asking of the questions is sufficient. To ask is to break the spell. To which I might add that questions about the psychic, political and social effects of information are as applicable to the computer as to television. Although I believe the computer to be a vastly overrated technology, I mention it here because, clearly, Americans have accorded it their customary mindless inattention; which means they will use it as they are told, without a whimper. Thus, a central thesis of computer technology—that the principal difficulty we have in solving problems stems from insufficient data—will go unexamined. Until, years from now, when it will be noticed that the massive collection and speed-of-light retrieval of data have been of great value to large-scale organizations but have solved very little of importance to most people and have created at least as many problems for them as they may have solved.

In any case, the point I am trying to make is that only through a deep and unfailing awareness of the structure and effects of information, through a demystification of media, is there any hope of our gaining some measure of control over television, or the computer, or any other medium. How is such media consciousness to be achieved? There are only two answers that come to mind, one of which is nonsense and can be dismissed almost at once; the other is desperate but it is all we have.

The nonsensical answer is to create television programs whose intent would be, not to get people to stop watching television but to demonstrate how television ought to be viewed, to show how television recreates and degrades our conception of news, political debate, religious thought, etc. I imagine such demonstrations would of necessity take the form of parodies, along the lines of "Saturday Night Live" and "Monty Python,"

the idea being to induce a nationwide horse laugh over television's control of public discourse. But, naturally, television would have the last laugh. In order to command an audience large enough to make a difference, one would have to make the programs vastly amusing, in the television style. Thus, the act of criticism itself would, in the end, be co-opted by television. The parodists would become celebrities, would star in movies, and would end up making television commercials.

The desperate answer is to rely on the only mass medium of communication that, in theory, is capable of addressing the problem: our schools. This is the conventional American solution to all dangerous social problems, and is, of course, based on a naive and mystical faith in the efficacy of education. The process rarely works. In the matter at hand, there is even less reason than usual to expect it to. Our schools have not yet even got around to examining the role of the printed word in shaping our culture. Indeed, you will not find two high school seniors in a hundred who could tell you—within a five-hundred-year margin of error—when the alphabet was invented. I suspect most do not even know that the alphabet *was* invented. I have found that when the question is put to them, they appear puzzled, as if one had asked, When were trees invented, or clouds? It is the very principle of myth, as Roland Barthes pointed out, that it transforms history into nature, and to ask of our schools that they engage in the task of de-mythologizing media is to ask something the schools have never done.

And yet there is reason to suppose that the situation is not hopeless. Educators are not unaware of the effects of television on their students. Stimulated by the arrival of the computer, they discuss it a great deal—which is to say, they have become somewhat "media conscious." It is true enough that much of their consciousness centers on the question, How can we use television (or the computer, or word processor) to control education? They have not yet got to the question, How can we use education to control television (or the computer, or word pro-

cessor)? But our reach for solutions ought to exceed our present grasp, or what's our dreaming for? Besides, it is an acknowledged task of the schools to assist the young in learning how to interpret the symbols of their culture. That this task should now require that they learn how to distance themselves from their forms of information is not so bizarre an enterprise that we cannot hope for its inclusion in the curriculum; even hope that it will be placed at the center of education.

What I suggest here as a solution is what Aldous Huxley suggested, as well. And I can do no better than he. He believed with H. G. Wells that we are in a race between education and disaster, and he wrote continuously about the necessity of our understanding the politics and epistemology of media. For in the end, he was trying to tell us that what afflicted the people in *Brave New World* was not that they were laughing instead of thinking, but that they did not know what they were laughing about and why they had stopped thinking.