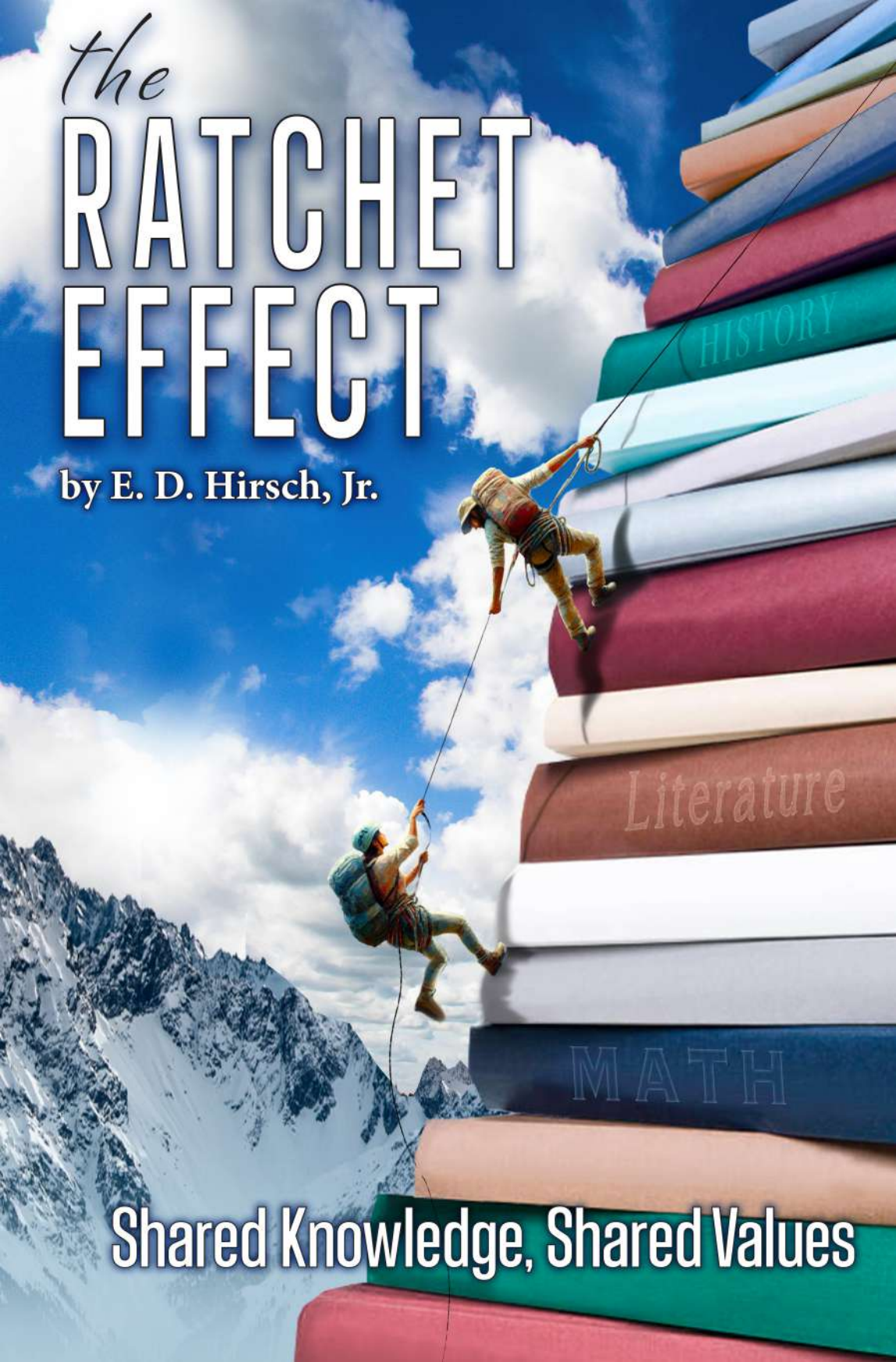


the
**RATCHET
EFFECT**

by E. D. Hirsch, Jr.



Shared Knowledge, Shared Values

The Ratchet Effect

Shared Knowledge, Shared Values

By E. D. Hirsch, Jr.

“We’re in the business of critical infrastructure, and the most critical infrastructure is our cognitive infrastructure,” said Jen Easterly.

Quoted in The New York Times March 17, 2024.

It’s possible to imagine a world without nations. But, in the meantime, that world does not exist, and this world is a world of nations, which is why it’s important to understand what nations are and to imagine what they can be.

Jill Lepore, This America

No one is born loving his country; such love is not natural but has to be taught or inculcated, or somehow acquired. A person may not even be born loving himself, but he soon enough learns to do so, and, unless something is done about it, he will continue to do so, and in a manner that makes a concern for country and fellow-countrymen—or anyone other than himself—difficult if not impossible.

Walter Berns, “On Patriotism”

Copyright 2024 by E. D. Hirsch, Jr.

Acknowledgements:

With thanks to the President and Fellows of Harvard University for permission to reprint the following items to which they own the copyright:

E. D. Hirsch, Jr., “The Educational Fall of France.” From my Harvard book: *Why Knowledge Matters: Rescuing our Children from Failed Educational Theories*, Harvard Education Press, 2016.

And also for permission to reprint the following article from the Harvard publication: *Education Next*, 24(2), 52-57 Grissmer, D., Buddin, R., Berends, M., White, T.G., Willingham, D.T., DeCoster, J., Duran, C.A.K., Holleman, C.S., Murrah, A.M., and Evans, T. (2024). “How Building Knowledge Boosts Literacy and Learning: First causal study finds outsized impacts at “Core Knowledge” schools.”

And also an excerpt from my article in that journal “Romancing the Child.”

The Ratchet Effect

Shared Knowledge, Shared Values

CONTENTS

PREFACE:

Educating Literate Patriotsv

DEDICATION:

To Albert Shanker and Jeffrey Littx

CHAPTER 1:

The Ratchet Effect and the Norway Principle..... 1

CHAPTER 2:

“I Couldn’t Depend on Students to Know Anything.”23

CHAPTER 3:

The Most Decisive Educational Experiment in History.....43

CHAPTER 4:

Why Romantic Schooling Must Go.....52

CHAPTER 5:

Decisive Evidence for the Common School.....64

CHAPTER 6:

The Ratchet Effect in the Fateful Early Grades.....82

APPENDICES:

I “The Educational Fall of France”98

II An Early Debunking of “Readability”127

III The Grissmer Study.....153

IV A Technical Note About Literacy: Hegel, Dewey, and
ChatGPT160

About the Author177

PREFACE

Educating Literate Patriots

*Know then thyself; presume not God to scan;
The proper study of mankind is man.*

So wrote the brilliant Enlightenment figure Alexander Pope. To set the scene for this book, I'll start with Pope plus a personal story: In an appendix to this book I will offer several remarks about the unfortunate influence of Hegel on John Dewey—the father of American child-centered education. To support those criticisms, I note that I had deeply studied Hegel in graduate school at Yale. I remember pondering every dense utterance of the *Phenomenology of Spirit* (1807). But I could not remember whether the course lasted a semester or a whole year. So, I wrote Yale to get my transcript, which I had never seen. It turned out that the graduate course on Hegel's *Phenomenology* did last a full academic year.

The transcript also listed my grades and professors' comments from my graduate courses in the Yale English Department during the late nineteen fifties. But the *most* interesting feature of the transcript was a rubber-stamped notice at the top, which stated in bold letters: “**VETERAN.**” What was that doing there? What did that have to do with my grades?

The late '50s was a very different America. Patriotism was intense in both political parties. World War II was recently over. But the Korean War followed—during which I had served. That officially stamped word at the top of the transcript belonged to

that era. Many students who went to graduate school in those days had been in the armed forces. But some had avoided service. Yale wanted to say to the reader of the transcript: “Whatever else you may want to know about the qualifications of this candidate, you should also know that he served and therefore deserves a hard, respectful look.”

It was very moving. In my boyhood we had been schooled to be patriotic. I still confess to being so. But time marches on. Hegel and John Dewey have taught us that human history is a march of progress. Many young Americans have been taught to believe that patriotism is now passé—“*aufgehoben*,” as Hegel would put it. This book is partly devoted to showing that Hegel and Dewey are passé—along with the idea that human history is *inherently* progressive.

Take for example our national reading scores. They started showing a big decline in the late 1940s. In prior decades, when our average literacy was higher, the USA had flourished because the creators of our political system were skeptical about human nature. They did not think that following nature was a good idea in our Common Schools. They were especially wary of following *human* nature, which, as they knew from history, can lead to injustice and bloodshed. History was to be a key study in our schools to alert us to the ideals as well as to the foibles and villainies of human nature. Our moral stories were to do the same. In government, the founders instituted the separation of powers, and they distributed those powers broadly, to reduce the chance that the worst sides of human nature would come to dominate.

The “common school” required common attendance by all social classes. Students would study in common the same science, and moral tales, and the same cautionary warnings from history about human nature, its imperfections and its unreliability and villainies. Schools were to stress science and history and moral tales. History would make students keenly aware of the snares of religious zealotry and of human greed for power.

The Founders wanted to create citizens in whom reason and science and empathetic moral rectitude would dominate over passion and rhetoric. They wanted to inculcate the principle that no individual is by birth more deserving and worthy than another. People could worship as they pleased, but no single religion was to be established. We the people were collectively to retain ultimate power. Hence we the people must be well educated factually, historically, and ethically.

In short, by a lucky accident, both our nation and our common schools had been founded at the very height of the European Enlightenment—the great intellectual movement that aimed to replace dogma with experience and logic. It placed our dominant educational emphasis on knowledge and reason, equality and ethics. The aim of the common school was to form literate, ethical patriots.

But a worm entered that Enlightenment educational apple.

Soon after our founding there arose in Europe a reaction to the Enlightenment faith in reason, with its cautionary checks and balances. The new ideas proposed that we must no longer rely on mere reason. Our instincts and our strong emotions *could* be trusted. They were natural and holy. The leaders of the new movement spoke movingly of “the holiness of the heart’s affections.” Europe and America were swept over by—romanticism.

The romantics said that emotion and instinct came from Nature, the agent of God. They also said that human history is progressive—a confident notion that underlay child-centered “progressive education.” Nature and the “child-centered” theme of “natural development” were to dominate in education. In Britain, Wordsworth jingled: “Enough of Science and of Art; / Close up those barren leaves; / Come forth and bring with you a heart / That watches and receives.” Nature, not history, was to be the new, God-governed guide in education.

In Germany, Hegel and the friend of his youth, Schelling, wrote imposing philosophical tomes against the “narrowness” of mere

reason. Never mind the insights of *past* history. The *forward* march of future history was Hegel's concern. He explained that history was inherently marching forward. So also believed Dewey, father of our child-centered "progressive" education. He once conceded that Hegel had left a "permanent deposit" in his mind.

This book is based on recent cognitive science showing that our Enlightenment Founders were right and that the child-centered romantics who now dominate our early education have been deeply wrong. Their mistakes have caused much of the "malaise" that we currently experience in our hostile, slogan-dominated politics.

Romanticism makes superb poetry, and that is where it should remain. In educational policy, romanticism has brought us confusion, disunion, and illiteracy. Our fifteen-year-olds rank 25th among the nations in combined literacy, math, and science. The romantics unwittingly also brought us racism by sentimentalizing and essentializing human differences of race and ethnicity.

Our Core Knowledge school-reform effort has been criticized for its "Eurocentrism" and lack of inclusiveness. We have responded to that criticism in two ways. We have included more material from non-Eurocentric cultures, and we have left room in each grade for local materials and have even supplied such materials. To see the extent of such representation the reader is invited to download the latest version of the *Core Knowledge Sequence* as well as numerous separate items, all supplied without compromising the firm, cumulative buildup of shared knowledge and vocabulary required for mastery of the next year's topics. This cumulative approach results in high grades in state reading tests while still honoring students' home cultures and enabling them to be included.

So popular is this approach among diverse groups that Core Knowledge schools are hugely oversubscribed by parents of diverse home ethnicities. (Chapter 1 offers data on that.) Anyone inclined to repeat that criticism of Core Knowledge as being "Eurocentric"

should look at the current *Core Knowledge Sequence*, which can be downloaded gratis from the Core Knowledge website.

Normalized written English has been so durable that our written language is, like all national print languages, highly stable and intergenerational. So, educators who continue to object to the “Eurocentrism” of Core Knowledge should be reminded that child-centrism is not only a Eurocentric theory; it is also an incorrect theory. That’s why *several* European nations are falling behind, along with the USA, on the international PISA tests for fifteen-year-olds. (See Appendix I.)

This book says that we should strive to bring back the Founders’ “common school,” whose aim was to create literate patriots. The Founders conceived that Americans ought to be skeptical of human nature and that our citizens should know enough history and science to stay loyal to the ideals of equality and resistant to human pretension and to sustain empathy for human bad luck. The cognitive science described in this book (some of it very new) will show that *empathy* lies at the heart of literacy itself. And literacy is the indispensable agency for sustaining democracy.

We need to re-create an updated version of the Common School that turns out literate patriots who cast a cold eye on the extremes of human self-regard and ambition.

DEDICATION

I dedicate this book to two New Yorkers:

To Albert Shanker (In Memoriam)

and

To Jeffrey Litt

They represent hope for setting our schools on an egalitarian course. When the USA takes a wrong direction, derailed from its ideals, patriots like Al Shanker and Jeff Litt sometimes succeed in getting us on the right track.

As a brilliant New York City adolescent, Albert Shanker saw that his mother had to work 70 hours a week. He became active in the labor movement. As a math teacher in NYC, he engaged in union politics. As the powerful head of the American Federation of Teachers, he became the only person in the nation who combined the intellectual acumen and the political power to move against the harmful effects that romantic, child-centered education was exerting upon poor and immigrant children—and on the wider nation.

Al and I were born in the same year, 1928. We became friends. After my book *Cultural Literacy* came out in 1987, followed by the start of the Core Knowledge Foundation and my writings on the errors and social inequities of child-centered education, Shanker picked up the argument and the revolutionary cause. He wrote pieces in his influential “Where We Stand” column in the *New York Times*. He commissioned essays from me for *American Educator*—the union journal—and he put me on two committees of the AFT itself.

Then Al died at age 63. And that was the end of his potential reshaping of our elementary curricula and our chance to turn away from romantic child-centered progressivism, which lacked a concrete curriculum. “Where’s the curriculum?” Shanker asked.

Al thus called out the *moral* flaw at the heart of child-centered education—which is to encourage the child herself to choose (by nature’s guiding hand) her own readings from the classroom library. To enable that individualized choice of readings, romantic child-centrists in charge of our education schools created the scientifically incorrect theory of generalized “reading levels,” and they created unsound reading measures called “Lexiles.”

The result has been deep unfairness. Our children’s literacy scores currently tend to reflect the literacy levels of their parents rather than the abilities of the child. Such social predestination does *not* occur in shared knowledge schools such as the “common schools” that our founders initiated. With some admirable exceptions, current practices have caused a multi-decade decline in our reading scores and in the malnourishment of potential talent.

It’s whispered that the decline was owing to school desegregation—thus transforming educational vice into self-praising virtue. But the decline preceded school desegregation and tragically impeded the effectiveness of desegregation. For, under the misguided reign of child-chosen readings, disadvantaged children of all colors have failed to overcome their home literacy disadvantage.

In the nineteen nineties, Albert Shanker quickly grasped the news from psycholinguistics and quickly understood the need for commonly shared background knowledge in spoken and written speech. He quickly grasped that disadvantaged children were being denied instruction in taken-for-granted background knowledge. Hence commonality of reading instruction was required—not individuality of instruction. With the power of his union behind him

and with the far reach of his weekly column, Shanker wrote the following in his *New York Times* weekly essay “Where We Stand”:

What we really need—at the very least—are statewide curriculum frameworks and statewide assessment systems. Then, students and teachers in every school will know what kids are responsible for learning and whether they have learned it. (*New York Times* Dec 11, 1994.)

This book will explain why the first state to follow such a principle will jump to the top in literacy and become a change agent for the rest of the nation. Albert Shanker’s death was a nation-weakening, fairness-weakening misfortune. It is for us, the living, to keep discarding the romantic illusions that he combated. This book is for you, Al.

###

And it's for you, too, Jeff Litt, my second dedicatee:

About twenty-five years ago Jeff Litt was the principal of a school in the poorest section of New York City—the South Bronx. Jeff admired the Founders' Common School idea as exemplified by schools that were then using the *Core Knowledge Sequence*. It offered what Shanker was demanding and what his students needed—an explicit, cumulative, common “curriculum framework.” Jeff's students were poverty-struck multi-racial, multi-ethnic children who were being held back because the child-centered New York public schools were *not* following *any* specific curriculum framework.

Jeff, your first Core Knowledge school was a miraculous success. After nine years in your K–8 school, *all* your impoverished, disadvantaged eighth graders were accepted by top high schools. From there they went off to college with fellowships. The word spread about the common school that you had formed. The philanthropist Carl Icahn bought you six more charter-school buildings with six more schools with similar results. You put into practice what Al Shanker was demanding of *all* our public schools. I relate the rest of your inspiring story in the first chapter.

Warm gratitude to you, Jeff ... and to Al's inspiring memory.

CHAPTER 1

The Ratchet Effect and the Norway Principle

Common background knowledge is thus at the core of a national network of communication between members of a democratic community. It makes it possible to fathom complex messages, and to interpret new ideas, situations, and challenges. Education plays a leading role in passing on this common background information—the culture everybody must be familiar with if society is to remain democratic and its citizens sovereign.

Unanimous Resolution, Norway Parliament (1994)

Human culture has the distinctive characteristic that it accumulates modifications over time (what we call the ‘ratchet effect’). These unique processes of social learning and cooperation lead to humans’ unique form of cumulative cultural evolution.

C. Tennie, J. Call, M. Tomasello “Ratcheting Up The Ratchet: On the Evolution of Cumulative Culture” (2009)

Cumulative cultural evolution takes place when the inventions in a cultural group are passed on to the young with such fidelity that they remain stable in the group until

a new and improved invention comes along (the so-called ratchet effect). Modern humans had a stronger ratchet than early humans and apes because they had—in addition to powerful skills of imitation—proclivities both to teach things to others and also to conform to others when they themselves were being taught. And so it is, with this wave of group-mindedness and conformity, that we get the possibility of cultural groups creating and constantly improving their own cognitive artifacts—from procedures for whale hunting to procedures for solving differential equations.

(M. Tomasello. *A Natural History of Human Thinking*, 2014)

These insights are a theoretical forward step in conceiving the education of a tribe or nation. The ratchet effect concerns the conceptual advancement over time of an entire cultural group. But it also accurately describes the conceptual advancement over time *within* the tribe or nation to each new generation. Schooling is the means of cultural transmission for the tribe as a whole and for each young initiate into the tribe. The function that evolutionary psychologists have applied for the whole group—the ratchet effect—applies also on the small scale to the individual child’s movement from grade to grade as she gradually assimilates the knowledge and language of the wider group.

In this first chapter, I’ll attempt to summarize some key insights from the field of evolutionary psychology that I have found to be highly relevant to our recent decline in reading scores and in our national unity. I hope you, the reader, will also find them as illuminating as I have found them to be.

Why do the evolutionists call it a ratchet? The metaphor stresses what they have determined to be the uniquely progressive character of a human culture—at least for those human cultures that grow and

survive. Our near relatives the bonobos and the chimpanzees do not gain ever-advancing new group insights and practices over time. They keep doing the same things over and over across generations. By means of language and a measure of rationality, our enduring human cultures have tended to improve themselves.

The metaphor of the ratchet stresses that progressive character more reliably than do Hegel's abstractions, but it's not the kind of horizontal circular ratchet you find on a screwdriver or socket wrench. It's the kind of ratchet that mountaineers place on their ropes and that allows them to climb upward but prevents them from slipping back down. Note, however, that some ratchets fail to work. They slip. The ratchet metaphor holds only for successful tribes. Similarly, not every child successfully achieves the gains needed to advance from one grade to the next—especially if the ratchet is based on a slippery romantic educational theory. The non-slip ratchet is a metaphor confined to successful tribes and successful pupils. Some civilizations destroy themselves—or get destroyed by other tribes and cultures. Others ratchet ahead.

In practice, the ratchet effect in human history parallels the success of empiricism in human thought. If it works—keep it—and figure out why it works. The ratchet effect in human history also corresponds roughly to the peer review system in science—and with the study of human experience in history. The American national experiment has worked in the past because its principles so far have been consistent with empiricism and peer review—with one notable exception, our misalliance in education with romanticism. The anti-romantic Norway Principle *enables* the ratchet system to work by enabling effective national communication and unity. Our recent educational history is poor. Our ratchet has slipped. Our language scores and our unity have been retreating.

Those two principles—the ratchet effect and the Norway Principle—describe schools that work and nations that move forward and endure. The educational side of the ratchet effect

requires schools that induce mastery of tribal language and of shared tribal knowledge. That's emphatically *not* to be left to "nature." Leaving it to nature induces the cultural stasis of bonobos and the chimpanzees, who fail to exhibit the ratchet effect.

The Norway Principle in Full

Let's look at the Norway Principle of language comprehension in more detail. It is a statement about the tribal need for substantive shared knowledge as key to inducing the ratchet effect and creating a durable and literate nation.

During the fierce debates of the 1980s over my book *Cultural Literacy* (1987), which stayed near the top of the best-seller lists for half a year, there was overseas commentary and reaction to its argument even as far away as Norway. It induced an ongoing, positive correspondence with overseas scholars and public officials.

I can't remember who it was in the subsequent years who mailed me a copy of an article describing the 1994 decision in Norway to put into practice the linguistic science that was reported in that 1987 book. The article about the Norwegian Parliament was issued in English by the Norwegian national department of education. The article was written by Professor Gudmund Hernes and titled "Core Curriculum for Primary, Secondary and Adult Education," without stating who had composed the original parliamentary resolution that he subsequently translated into English.

Perhaps it was Professor Hernes himself. It brilliantly summarized key linguistic insights and their implications for democracy. It stated the case so eloquently that not a single Norwegian MP from any party opposed the resolution. It was unanimously adopted.

I find its eloquence and insight to be without peer. It stresses the essential connection between universal high literacy in a nation and the competence and fairness of *any* democracy where the people rule. Could such eloquence also persuade an American governor or legislator regarding a core curriculum? It accurately describes and

explains the profound connection of shared knowledge and value with literacy and social fairness:

It is a tenet of popular enlightenment [*i.e. the enlightenment of a whole people*] that shared frames of reference must be the common property of all the people—indeed must be an integral part of general education—to escape avoidable differences in competence that can result in social inequality and be abused by undemocratic forces.

Those who do not share the background information taken for granted in public discourse will often overlook the point or miss the meaning. Newcomers to a country who are not immersed in its frames of reference often remain outsiders because others cannot take for granted what they know and can do; they are in constant need of extra explanations.

Common background knowledge is thus at the core of a national network of communication between members of a democratic community. It makes it possible to fathom complex messages, and to interpret new ideas, situations, and challenges. Education plays a leading role in passing on this common background information—the culture everybody must be familiar with if society is to remain democratic and its citizens sovereign.

If Norway's entire parliament can unanimously understand and undersign these linguistic and social truths, so can our governors and state legislators. It can remind them of their constitutional obligations as Albert Shanker formulated them:

What we really need—at the very least—are statewide curriculum frameworks and statewide assessment systems. Then, students and teachers in every school will know what kids are responsible for learning and whether they have learned it.

Such equality of shared knowledge was part of the originating purpose of our early “Common School” started by our early predecessors including Noah Webster, Benjamin Franklin, Thomas Jefferson, and William Holmes McGuffey. That word “common” in “Common School” was meant to include all pupils from all social classes. Rich and poor were to learn the same things.

Under Shanker’s “curriculum framework,” individual districts and schools can use different versions by different publishers and authors. Hence there would *not* be a dictatorial propagandistic “brainwashing” effect of commonly shared information. It would have the opposite effect. Making voters more literate makes them more, not less, independent-minded.

How Jeff Litt’s Schools Exhibit the Norway Principle and the Ratchet Effect

In that context, let’s look at how Jeff Litt’s schools have exhibited both the Norway Principle and the ratchet effect in the low-income South Bronx. Here is a demographic breakdown of his pupils.

Demographics of Jeff’s Schools in NYC							
School	#1	#2	#3	#4	#5	#6	#7
Below Poverty Level	85%	58%	72%	66%	77%	85%	78%
Black	49%	33%	62%	61%	58%	51%	45%
Latino	50%	56%	29%	29%	30%	46%	49%
Disabled	4%	4%	8%	12%	7%	10%	8%
Homeless	7%	8%	5%	4%	2%	9%	6%
ELL	7%	4%	2%	2%	2%	8%	7%
Asian/Pacific	1%	4%	4%	4%	6%	1%	3%
White	0%	4%	3%	1%	5%	1%	1%
Native American	1%	1%	1%	1%	1%	0%	0%

And (thanks to the American Debate League) here is a photograph of how his pupils performed by the time his kindergarteners had reached grades seven and eight.



These children have just defeated rival debate teams from wealthier schools and school districts in New York City. Under Jeff’s guidance, these children had experienced for seven or eight years the kind of schooling that Al Shanker demanded for all children—that is, a definite curriculum framework and common readings rather than their own choice of reading matter. Their rivals in the city schools, by contrast, *had* classroom libraries with books graded by grade level, but they lacked a specific, sequenced curriculum framework.

This picture can be interpreted not just as a tribute to Jeff Litt and Al Shanker but also as the triumph of the Norway Principle and the ratchet effect over the principle of “child-centered” education that prevails in the United States.

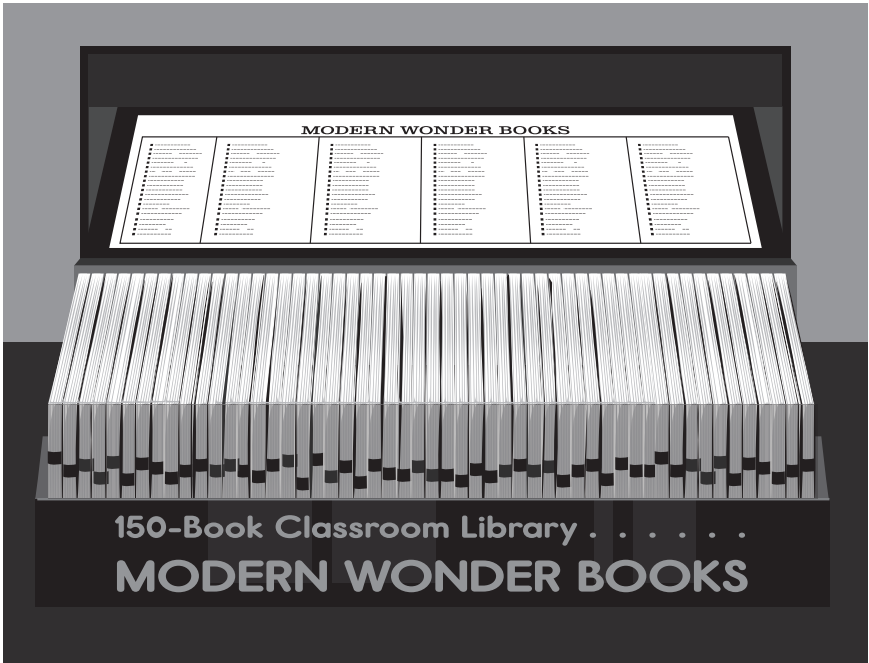
If South Bronx parents had their way, Jeff’s ratcheting principle would have taken over the entire South Bronx. His schools can accept only about 200 kindergarteners each year. Nobody leaves, and by law, his schools must accept siblings of children already in the schools. So there must be a blind lottery for those

200 or so kindergarten places. Twenty-five thousand (25,000) kindergartners apply each year. Word has gotten round in the South Bronx about what happens to Jeff's K–8 kindergartners. By grade 8 they *all* get accepted by select high schools. After high school they get fellowships to colleges, and as adults they get good-paying jobs. That's the ratchet effect at work at the level of the individual pupil.

In the photo of their debate victory, they also exhibit their mastery of the Norway Principle. In persuading their audience in the debate contest, they show that they have mastered the unspoken knowledge and values of the adult tribe. They know what will please and impress their judges, and they can bring that shared knowledge and value to bear in their arguments. That shared background knowledge consists of both word meanings and knowledge of what typically can be taken for granted in the audience. In every modern nation, “literacy” embraces both—not just the vocabulary but also the unstated shared knowledge and values of readers.

One can therefore make a further inference about the pupils in the photograph. These children can write well. They gain admission to top high schools because they know how to speak and write publicly. Both reading comprehension and writing expertise rely on familiarity with the background knowledge and values of the wider society. For that reason, the Norway Principle of shared background knowledge is a key component of full literacy in every nation.

In sum, the triumphant photograph on page 7 represents the victory of one educational theory over another: the victory of the Enlightenment “common school” over the Romantic “child-centered school.” And here's another relevant photo behind that result.



This photograph above of a classroom library from the 1940s or 1950s represents the sort of child-centered reading instruction that has debased our literacy and enabled Jeff’s disadvantaged pupils to win their debates. The ideas behind our current child-centered “classroom library” suggest why our literacy began to decline. Romanticism produced “progressive” child-centrism. That in turn produced the classroom library, which was supported by the theory of readability “levels,” which is a scientifically incorrect theory.

Why “Readability” and “Lexiles” and “Grade Levels” Are Invalid.

The above photograph is thus also the image of an educational theory. It is supported by a theory of reading that is factually incorrect—namely the theory of reading levels and “Lexiles” and “grade levels.” Child-centric educators devised these to enable the child to choose topics of special interest to that child. Child-centrism is

built upon the idea that the child's natural, instinctive choice of topic will be right for that child. It will encourage deep interest and foster the most rapid advance in gaining reading ability. But we know from declining reading scores that this notion did not improve reading scores. That's clearly not a forward ratcheting effect. Any hardheaded, practical ratchet user would conclude that maybe the ratchet is defective. But romanticism is impervious to empiricism because it is at bottom a religious faith. It believes in the "natural" God-determined character of the child's individual instincts and choices.

Forty-four years ago, I reported experiments at the University of Virginia that showed readability formulas to be useless in practice. (In the appendix, I have included my 1980 publication on that research entitled "Culture and Literacy.") Nonetheless, despite their invalidity, these readability "levels" and classroom libraries are so central to the child-centric tradition that those elaborate "measures" of reading levels persist. They have been used as props to progressivism for so long that we now have accepted these fictions of general "reading levels" as being facts.

One can quickly understand *why* they are not facts. In the laboratory, readability is determined by processing time. But speed depends on familiarity, slowness on unfamiliarity, and extreme slowness and puzzlement on ignorance. Readability, word-novelty, or the length and construction of a sentence are significant psychologically *only* when the background knowledge needed for comprehension is already present. *Readability makes a difference only to people who already possess the background knowledge required to understand the passage.* Only then do complex syntax and word "levels" play a role in the actual readability of a text for an actual reader. In that case, the passage will take a bit longer to process, but it will still be understood. But when the needed background knowledge is absent, there's NO difference in readability "levels" for an actual text, no matter the characteristics of the text. (See Appendix II for

more detail on this finding about the inadequacy of “readability” measures.)

So, without somehow controlling for the actual relevant knowledge of the specific reader, readability is a pointless measure for deciding a text’s suitability for a child. Technical measures of word frequency and sentence length and sentence form are not descriptive of the psychological realities of the classroom nor sufficient for creating a useful and coherent curriculum. The whole elaborate paraphernalia based on “readability” and “grade level” should be discarded by any forward-looking state and replaced with a specific grade-by grade topic sequence as a core that still leaves room for school choice among diverse materials that offer diverse treatments of the same topic sequence.

The key measure for actual curriculum-making and text selection is to gauge the demands upon the relevant background knowledge of the student. *And the only way to take that into account is by knowing what the students already know because you have taught it to all the children in the class.* That’s not possible when children in a class learn diverse topics. The romantic individualism of child-centered education is the enemy of literacy, fairness, and democracy.

Thus, the pseudo exactitude of the readability measures has accompanied a decline of our reading scores. Common sense and a shared curriculum is a far superior (and a more scientific) principle of curriculum making than pseudoscientific readability formulas that have supported and helped cause our literacy decline.

The Grapholect and the Nation. Another, concept related to the Norway Principle is the concept of the *grapholect*. That’s the term that linguists use to describe the print dialect that is used by a nation in its public written and spoken discourse in print publications, radio, television, and the internet. The *national* character of this standardized grapholect—the national language—distinguishes US English from British English and Nigerian English and Australian

English. At some point in history British editors and lexicographers and schoolbook makers did not approve of naming a “pullover” a “sweater.” Perhaps they did not like our Yankee reference to “sweat.”

Grapholects tend to differ between nations. The late Chinua Achebe was once reproached by other African writers for writing books in English instead of writing in one of the several *regional* dialects of Nigeria, now a huge nation of 195 million people. Achebe’s response is available in an informative article, “English and the African Writer.”

His first novel, *Things Fall Apart* (a phrase from the Irishman W. B. Yeats) remains an international bestseller. It has sold more than twenty million copies. In his essay “English and the African Writer” he observed that the Nigerian English grapholect is now the *national* written and spoken language of Nigeria. It needs to be mastered by everyone for writing, and for reading and listening—and for national politics and the national economy, and for giving everyone a chance. He observed that none of the rival local tribal languages of Nigeria could serve that egalitarian and practical purpose for its millions of citizens.

And he made another key point: that although the British had imposed English on Nigeria for their own purposes, the resulting linguistic universality enabled people to talk to one another and work together to a degree that had not been possible in the era of multiple tribal languages. He observed:

In political and economic terms too, this arbitrary creation called Nigeria holds out wonderful prospects. Yet the fact remains that Nigeria was created by the British—for their own ends. Let us give the devil his due: colonialism in Africa disrupted many things, but it did create big political units where there were small, scattered ones before. ... On the whole it did bring together many peoples that had hitherto gone their several ways. And it gave them a

language with which to talk to one another. If it failed to give them a song, it at least gave them a tongue, for sighing.

One can understand the types of grievance that might accompany such an initial imposition of a shared language with its accompanying shared knowledge and value. But the national military safety and the economic advantages of forming big nations from smaller units (like our states in the 1780s) have been a fact of historical desirability carrying benefits that are hard to challenge.

“Shared Intentionality” and Cradle Guessing: Besides the ratchet effect and the Norway Principle, there’s a third fundamental concept that rounds out the character of national literacy.

It is implied in the Norway Principle and distinguishes us from bonobos and chimpanzees. We alone among the species employ *articulate language*. A scientist whose work is featured in this book—Michael Tomasello—has spent years studying ape-human characteristics at the Max Planck Institute, and in a series of well-written books and articles, he has revealed that a unique key to human language ability is our empathetic ability, starting in infancy, to gauge other persons’ meaning intentions from the noises they make. From this “shared intentionality,” as Tomasello names it, we move to shared word meanings, and we ratchet up from there.

The common background knowledge described in the Norway Principle is at the core of a national network of empathetic communications between members of a democratic community. It is built upon what Michael Tomasello and his colleagues name “shared intentionality.” It lies behind the human ability to make and learn articulate language. Humans alone exhibit “shared intentionality” that enables us uniquely to create and learn articulate language and form tribes that can act as huge organisms.

Our species alone can ratchet up progressively *within* a culture because we alone possess to a high degree the pre-linguistic gift

of empathetic intention guessing. That guessing talent makes us uniquely articulate and social. Accurate language guesses are just as essential to a cradled infant as they are to a learned professor of literature or jurisprudence. A grammar instinct may be inborn, or it may not be. That is still disputed. But the meaning intentions behind an utterance must always be inferred even when the utterance is ungrammatical.

Everybody, including infants, must guess unstated meaning-intentions. I've written a lot on this subject, but in ignorance of professor Tomasello's work. I hope others will find his insights into shared intentionality and the evolutionary perspective of the "ratchet effect" to be as useful to our educational authorities and state legislators as I have found them to be.

Evolutionists in general have an illuminating take on early schooling. They tell us that K–12 schools act as cultural ratchets to perpetuate the shared knowledge of the society. That's the thousand-year perspective of *A Natural History of Human Thinking*, by Tomasello, who says the following in that book about the schooling of humans. We have:

proclivities both to teach things to others and also to conform to others when they themselves were being taught. And so it is, with this wave of group-mindedness and conformity, that we get the possibility of cultural groups creating and constantly improving their own cognitive artifacts.

Evolutionists vs. Romanticism: Tomasello's allusion to "group-mindedness and conformity" does not fit well with our child-centered, individualistic, constructivist conception of elementary education. The child-centered theory encourages children to develop naturally according to their inborn paths. Jean Piaget stated it this way:

Children should be able to do their own experimenting and their own research. Teachers, of course, can guide

them by providing appropriate materials, but the essential thing is that, in order for a child to understand something, he must construct it himself, he must re-invent it.

But decades—even centuries—of ratcheted cultural advance and tribal experience cannot be “constructed” ex nihilo by a young child. Tomasello and his colleague C. O’Madagain state it this way:

What is inherited is the product of several generations of innovation, and often goes beyond what any generation could have produced on its own. The cultural ratchet can be seen as a kind of collective pooling of knowledge and cognitive resources in the social group, as individual innovations are adopted and built on by everyone else.

Our nationwide experiment with child-centered, constructivist learning has accompanied a sharp decline of our reading scores and unity. Those two declines go together, because verbal comprehension depends upon unstated background knowledge silently shared between author and reader, speaker and listener across the nation.

Reading comprehension and speech comprehension depend in each case upon shared, unstated knowledge and on correctly gauged meaning *intentions* that alone can specify and amplify meaning. Our error about the existence of an all-purpose reading level has led to alarming declines in our American reading scores—and in our national unity, which, like our reading scores, depends on shared background knowledge *specific to the utterance*. When our collective shared knowledge declined over the past seven decades, so did our reading scores and our national cohesion.

In the change from communal school readings in shared anthologies to individual readings from classroom libraries, the culprit has been child-centered romanticism. Historians of the romantic movement of the 19th century (like me) can readily explain why, after our Enlightenment founding, some top thinkers like Ralph Waldo Emerson and John Dewey, under the influence of romanticism,

urged us to follow nature in our schooling. Nature, they confidently believed, would benevolently oversee the child's natural physical and mental "development." Unfortunately, the gradual effect of this all-conquering romanticism on American educational thought has been profound.

Under the romantic faith, God and His agent Nature oversee our Hegelian forward march. Such confident romanticism viewed human cognitive "development" as analogous to the growth of a plant. The romantic poet Wordsworth wrote a long autobiographical poem titled *The Prelude or Growth of a Poet's Mind*. He meant it when he said "growth." An early line in his poem goes: "Fair seed-time had my soul." Our current use of the terms "development" and "growth" to describe early education are remnants of that confident romanticism that began taking over our educational thinking in the 20th century. T. E. Hulme once correctly called romanticism "spilt religion." That's why it's so hard to combat.

Current evolutionary psychologists want you to notice that they use a different noun than "development." They use the term "ontogeny." It simply means: "the life-course of an individual." Evolutionary psychologists stress that the communal shared knowledge conveyed over generations by education has been invented by us and is *not* seeded in our nature. Evolutionists use the noun "culture," not "nature." Indeed, they stress that our cultural artifacts and practices may be hostile to nature. One evolutionist, Joseph Henrich, described our activities this way:

The disappearance of many megafaunal species eerily coincides with the arrival of humans on different continents and large islands. For example, before we showed up in Australia around 60,000 years ago, the continent was home to a menagerie of large animals, including two-ton wombats, immense meat-eating lizards, and leopard-sized marsupial lions. These, along with 55 other megafaunal

species, went extinct in the wake of our arrival, resulting in the loss of 88% of Australia's big vertebrates.

Such bloody observations are antidotes to the romantic assumption that God benignly oversees the educational "development" of the child. Evolutionists stress the diversity of children worldwide. They conceive of human education as a ratcheted cultural process. They regard the shared knowledge and shared print language of schooling as human-made ratchets designed to preserve social gains and to devise new improvements of them.

In holding that view, current evolutionists are in tune with educational leaders of our early republic like Benjamin Franklin and Noah Webster, who followed the lead of our founding philosopher, the Englishman John Locke. Locke's political theories guided Jefferson in writing our Declaration of Independence, and Locke's psychological and educational theory proposed that the mind of a human baby does not start out as a seedling poised to "develop" but as a "blank slate" ready to be written upon.

That's almost right says Elizabeth Spelke in her authoritative new work *What Babies Know*. She shows that the baby's inborn "core knowledge" is highly vague and abstract—a characteristic that enables a society's caregivers to write upon the child's semi-blank "slate" whatever shared knowledge the society's elders have devised.

Current science, then, is more Lockean than Hegelian. Human culture and education are human-made historical accommodations to local exigencies, rather than being an inherent, natural unfolding. (Tomasello for instance stops using the noun "development" after age nine.) Local conditions are contingent and varied. Our social inventiveness has enabled human schools to foster varied cultures and has enabled the survival of humans across the globe in diverse environments—not through natural development but through highly varied cultural accommodations.

The Validity of the Cultural Ratchet, Shared-Knowledge Concept

Evidence for the mainly cultural, non-developmental, shared-knowledge character of effective human schooling has been growing. Here, briefly, are three recent examinations of the shared-knowledge approach in the USA: 1) The consequences of a statewide policy change in the state of Tennessee, 2) a well-controlled experiment with 3,000 pupils by James Kim of Harvard, and 3) a well-controlled longitudinal Colorado study with 2,300 pupils by David Grissmer of the University of Virginia.

Tennessee: That state recently overcame the baleful educational effects of COVID by means of shared-knowledge ratcheting. It was an unforeseen natural experiment. The new state reading standards had called for a shared knowledge approach to reading skill. That new approach was well underway when COVID struck. The accidental timing made Tennessee the only state that *improved* its reading scores under COVID. That's a very suggestive natural experiment. The following comment was offered by the LIFT publication—acronym for “Leading Innovation for Tennessee”—put out by Tennessee educational leaders and reformers:

The Tennessee Department of Education shared in their July 2022 press release: “State ELA proficiency rates now exceed pre pandemic levels. Since the pandemic, 72.6% of districts now meet or exceeded pre-pandemic performance in ELA.” This is an incredible accomplishment given the challenges of school years affected by the Covid-19 pandemic. “ ... LIFT report, Fall 2022 page 14.

Second example: The Kim study: A big well-controlled experiment was recently conducted by Professor James Kim of Harvard. He oversaw a longitudinal study of some 3,000 first graders. He and his colleagues determined that shared background knowledge significantly raised reading and learning abilities in second grade

compared with a control group that followed our current use of child-chosen reading topics. Kim found that there was a strong difference in reading and learning ability between the two groups. The shared-knowledge group were able to use their past knowledge to master further lessons about related topics in science and social studies. The shared knowledge approach did a better job than the Individualized-reading approach in securing further knowledge.

Third example: the Grissmer study. Here is a description of a seven-year longitudinal study by David Grissmer, as reported by Robert Pondiscio for the Fordham Foundation. It is described by Fordham as the number-one education story of 2023. Its results were achieved by the year-to-year ratcheting effect of shared background knowledge—as in the Kim study. Here is Pondiscio’s summary:

The six-year randomized control trial followed over 2,300 students who applied for kindergarten to one of nine oversubscribed Core Knowledge schools in the Denver area. Nearly 700 students who won seats in the lottery were compared to students who applied but ended up matriculating elsewhere. Researchers looked at state test results from third through sixth grade. The cumulative long-term gain from kindergarten to sixth grade for the shared-knowledge students was approximately 16 percentile points. Grissmer and his co-authors put this into sharp relief by noting that if we could collectively raise the reading scores of America’s fourth graders by the same amount as the Core Knowledge students in the study, the U.S. would rank among the top five countries on earth in reading achievement. At the one low-income school in the study, the gains were large enough to eliminate altogether the achievement gap associated with income. Eliminate it!

Ratcheting at work!

Conclusion: Let's Start Ratcheting

Besides the general nationwide ratcheting function of the human school in forming communicative citizens, the ratcheting principle is also needed to form communicative pupils from grade to grade—as the Kim and Grissmer studies showed. The old-fashioned shared-knowledge classroom is gradually coming to be understood as the latest thing. Advocates of its foe—child-centered schooling—have complained that such a shared knowledge curriculum is socially and politically “conservative.”

But language conservatism can be quite hostile to political conservatism. In fact, it is an essential agency of democratic revolution. Consider the language conservatism of our Declaration of Independence. It is intellectually and socially progressive. It places everybody on the same verbal and social footing, as the Norway Principle makes clear. It fosters a more competent and egalitarian society. Hence, the shared background knowledge needed to read general books in the library and to communicate with fellow citizens promotes equality, unity, and progress in a modern society.

That does not happen naturally. It happens through effective schooling. Teaching everybody the same things in early grades in an interesting and engaging way has proved to be the sole road to high literacy and equality for all. Child-centered individualism, by contrast, is a social-justice failure. The ratchet effect combined with the Norway Principle constitute the sole route to high literacy and social justice in a nation.

Further Reading (in order of publication):

Hirsch, E.D., (1967) *Validity in Interpretation*, Yale University Press.

Jean Piaget, (1972) “Some Aspects of Operations”, in *Play and Development: A Symposium with Contributions by Jean Piaget, Peter H. Wolff and Others*, ed.: Maria W. Piers, W. W. Norton, New York

Hirsch, E.D., (1980) “Culture and Literacy,” *The Journal of Basic Writing*, vol.3 no.1, pp. 27-47,

- Hirsch, E.D., (1987) *Cultural Literacy: What Every American Needs to Know*. New York, Vintage.
- Hirsch, E. D., (2001). “Romancing the Child” <https://www.educationnext.org/romancing-the-child/>
- Tomasello, M., et al. (2005). Understanding and sharing intentions: The origins of cultural cognition. *Behavioral and Brain Sciences*, 28(5), 675–735. <https://doi.org/10.1017/S0140525X05000129>
- Tomasello, Michael, (2008). *Origins of Human Communication*, MIT Press.
- Tennie, C., J. Call, and M. Tomasello. (2009). “Ratcheting up the ratchet: On the evolution of cumulative culture.” *Philosophical Transactions of the Royal Society of London, Series B: Biological Sciences*, 364, 2405–2415.
- Katalin Egyed et al., (2013) “Communicating Shared Knowledge in Infancy,” *Psychological Science* (26) 1348-1353
- Tomasello, Michael. (2014) *A Natural History of Human Thinking*. Harvard University Press.
- Emmanuel Renault. (2016) “Dewey’s Relations to Hegel,” *Contemporary Pragmatism*, 12, 2016, 219-244.
- Henrich, Joseph. (2016) *The Secret of Our Success: How Culture Is Driving Human Evolution, Domesticating Our Species, and Making Us Smarter*, Princeton University Press.
- Alan Bailin, Ann Grafstein, (2016) *Readability: Text and Context*, Palgrave Macmillan
- Hirsch, E.D., (2016). *Why Knowledge Matters*, Harvard Education Press.
- O’Madagain C., Tomasello, M. (2021) “Shared intentionality, reason-giving and the evolution of human culture. *Phil. Trans. R. Soc. B*377: 20200320. <https://doi.org/10.1098/rstb.2020.0320>

Kim, J. S., et. al. (2022). “Longitudinal Randomized Trial of a Sustained Content Literacy Intervention from First to Second Grade: Transfer Effects on Students’ Reading Comprehension.” *Journal of Educational Psychology*.

Spelke, Elizabeth: *What Babies Know*: (2022) Vol 1: *Core Knowledge and Composition*: Oxford University Press, (Evidence for the *abstract* character of the baby’s inborn “Core Knowledge”)

The Tennessee LIFT Report (2023) <https://lifteducationtn.com/wp-content/uploads/2023/01/2022-LIFT-Annual-Report.pdf>

Grissmer et al. (2024) “A Kindergarten Lottery Evaluation of Core Knowledge Charter Schools: Should Building General Knowledge Have a Central Role in Educational and Social Science Research and Policy?” [ednext_XIV_2_grissmer_et_al.pdf](#) (educationnext.org)

CHAPTER 2

“I Couldn’t Depend on Students to Know Anything.”

Effects of Child-Centered Romanticism from Two Teachers and Four States

Here follows an interview with two teachers who have experienced both the romantic child-centered approach and the common-school, shared-knowledge approach. Dr. Hudak has taught in public schools of Ohio and in Arizona, and Ms. Kinter in those of Florida and North Carolina. Both switched to teaching in shared-knowledge, Core Knowledge public schools in the latter parts of their teaching careers. They offer reliable, first-hand accounts of the classroom realities that they encountered in the United States.

This verbatim interview lets us observe firsthand how poor children from disadvantaged circumstances are being cheated by theories about children unfolding naturally when allowed to follow their own paths. I have changed their references to Core Knowledge schools to “knowledge-based” schools because this book and the Core Knowledge Foundation continue to stress that we are promoting a principle, rather than our specific teaching materials, from which, in any case, no person employed by or governing the Foundation gains an extra penny.

Precisely *how* the *ideas* of the shared-knowledge approach are put into effect by such materials should be decided by the schools and

by districts—freely chosen materials but **not** freely chosen shared *topics*. Once a state does its constitutional duty by setting forth a core *topic* sequence as Albert Shanker proposed, then it should be up to districts and schools to select their preferred realizations of that required topic sequence. That way, no one could credibly make the facile accusation of government “brainwashing.”

To sum up the argument so far: The prior chapter showed that the theory of child-centered learning is both technically incorrect and socially unfair. Its individualism has been technically sustained by the discredited notion of “readability,” as well as by the discredited idea that language ability is a general skill that can be gained by diverse helter-skelter books at just the right “complexity levels.” On those incorrect notions, the school’s choice of reading topics can supposedly be left up to young pupils themselves! I have occasionally bolded some of the more astonishing revelations of Cathy and Michele regarding the unfair effects of those deeply mistaken ideas.

Most people (I find) are somewhat bored with the technical aspects of the scientific account of cognitive skills: *the specificity of human expertise*. But that basic finding is not complex. And that insight about skill specificity subverts our current reliance on *general* reading-comprehension skills and *general* critical-thinking skills. One recommended book on the topic is *Peak: Secrets from New Science of Expertise* by Anders Ericsson and Robert Pool. It’s an excellent account of the *domain specificity of human skills*. It’s a valuable antidote to the harmful pipe dream of general reading skill and general critical thinking skill that currently debases our reading skill and our critical thinking.

Thus, Ericsson and Pool:

A crucial fact about expert performance in general: there is no such thing as developing a general skill. You don’t train your memory; you train your memory for strings of digits or for collections of words or for people’s faces. You

don’t train to become an athlete; you train to become a gymnast or a sprinter or a marathoner.

Similarly, expertise in using American English is not the same as expertise in using English “English.” Modern national languages can be dialects of a wider language group of tribal or national languages. The modern nation is a big tribe, and its effectiveness as a tribe depends upon all its members mastering *its* dialect so they can communicate, coordinate, and learn. Teaching and sustaining the tribal language and lore is therefore a chief duty of the tribe’s early schooling.

In the following interview with Cathy and Michele you will find concrete reports from two experienced teachers who have seen the issues firsthand with typical public schools in four states as well as in Core Knowledge schools, have seen the concrete effects on children (including their own), and have reached conclusions that reinforce the scientific findings outlined in the prior chapter.

When their experiences are paired with the recent dramatic multi-year longitudinal studies of the child-centered versus shared-knowledge schools, the firsthand classroom observations by these teachers will be seen as reliable and worth acting upon. At present, no alternative mode of early education carries as much scientific and evidentiary weight as the shared-knowledge approach that we abandoned in the 1940s. Our subsequent enthusiastic adoption of child-centered education has been a mistake that has weakened the United States and has exacerbated economic inequalities, reduced patriotism, and heightened resentment and disaffection among Americans. Let’s hear from the front lines as to **why** that has been the result:

First Topic: Where *is* the Curriculum?

EDH: Is it currently typical of districts nationwide that teachers are given only that very general guidance—rather than specific topics to teach?

MICHELE: Yes, yes. I told my own children I was going to teach in a new school where we knew in advance exactly the things the children had already learned, and we also knew what we needed to teach this year, so I said to my kids: “Listen, Mom’s going to go to this knowledge-based school.” And my daughter said: “Well, that’s a good thing, Mom. Mom, I think I’m going to come to your school.” And I said, “Why? You don’t have to,” and she said, “Mom, every year, in science since I was in kindergarten, I learned about plants. I’ve had the same packets on plants since I was in first grade.” And she said, “I’m just tired of plants. So, I think I want to go to your school to learn something else.”

CATHY: The way that I met those so-called standards was left up to me. I may have a particular textbook that I would begin and then go through the whole year, or I may not.

EDH: That raises another question. Do you mean that normally in what you’re calling “child-centered classrooms,” the teacher will choose his or her own materials and textbooks to meet these very general standards?

CATHY: Yes. I think back to when I first went to North Carolina, and I taught science in fifth grade. I had a set of North Carolina “standards,” but I did not have any specific curriculum. It had no content. Think like a scientist and so on. Here are your standards, how you meet them is completely and totally up to you.

EDH: So, you’re looking at that issue from both angles, as a teacher and a mother?

CATHY: Yes. The way that I met those standards was left up to me. I rummaged around to select my own materials.

EDH: So, the standards were never *content* standards?

CATHY: No.

EDH: They were what?

CATHY: Reading standards, math standards, writing standards.

EDH: They were *skill* standards, were they?

CATHY: Yes, yes. Very skills based.

EDH: I see, okay. Now I'm getting the picture.

Note: I was "getting the picture" because cognitive psychology has informed us that such a "skills" approach is misconceived. The idea of general skills has been invoked to justify the child-centered approach, but, as I noted above, recent psychology has debunked the idea of such general skills.

In deference to the idea of enabling the individual child to develop naturally and to follow her instinctive choice of reading topics, the teacher is urged to be "a guide on the side not a sage on the stage."

Those notions of the child unfolding, "developing" out of her own nature are a key idea of European Romanticism—rejected by current science.

Some scientists are cautious about characterizing human education and "growth" as being a "development"—a word that literally means "unfolding." They prefer the more neutral term "ontogeny," which means that one's life course is influenced by all one's experienced factors, including culture and accident. "Development" is not an accurate metaphor for any child's induction into a culture.

The teacher interview continued:

Centers

MICHELE: Another child-centered idea when I was teaching first grade was that idea of centers—work centers for students, right? Students move around from one round table to another. You put these centers in place so that children could explore. There were literacy and math centers, so I had this 180-minute block. That's a lot of minutes for a young child to be exploring. I don't even think I wrote lesson plans the first three years that I was a child-centered teacher because I spent all this time creating these independent work centers with the kids. And so, they moved from one center

to another, and I had a bell and after fifteen minutes I would ding it and they would move to the next one.

After five minutes they were done, and there was usually mass chaos ensuing. So, then I would have to create more centers because I knew that the kids could maintain attention for only five to seven minutes. So, there I was on the weekends at school, creating twenty-five centers. I had this graph of a movement system to get the kids to move through, and then at the end of the day, I would be exhausted. I tried to teach my standards through their interests. So, my guided reading centers might be like this: In this center, we were building words about spiders. In that center, we were reading a reading passage and answering questions about butterflies. In another center, we were watching a video. In this center, which was my guided reading center, I might have leveled texts about spiders.

[Note by EDH: Every aspect of that time-wasting, individual, arbitrary, non-sequential, unplanned, misguided, incorrect theory and practice makes one weep. The greatest harm comes to the neediest and to the wider nation.]

EDH: Cathy, could you say a little bit about centers? What was the idea of these centers and how did they work?

CATHY: The idea behind the centers was that you were able to differentiate, to meet students where they were, and to take them as far as they could go.

EDH: What does a center look like?

CATHY: It could look different in different classrooms. A center, basically, is a small group of students working on an activity together. Oftentimes they were student-generated, in that there would not be a teacher working with them. To meet the needs of students, you couldn't give them whole-group instruction.

[EDH insertion: There could not be a whole-class discussion, because the background knowledge of each child was so unpre-

dictably different. That was because their prior classes had been on different individualized topics. Hence, there was no possibility of a successful speech community in the class. This defect is enormously important from the social justice standpoint.]

CATHY: So, you broke it down into small, manageable groups, with, hopefully, high-interest activities so students would maintain engagement throughout them, even though you were not right there watching them.

EDH: In a way, they were teaching themselves at these centers.

CATHY: Correct, yes.

EDH: Because the teacher couldn't deal with the whole class, because there were such varied backgrounds among the students?

CATHY: Correct. The teacher was usually at the reading center, where students were reading "leveled" books. So, you were working on reading skills and comprehension while the other students were working on different tasks related to a standard, but again, hopefully, high interest enough that it was engaging to them, and it would maintain their attention for fifteen minutes. And then they would switch.

EDH: How did you prepare? You're preparing for the class to come in, and so how do you prepare who goes where and, physically, what do the centers look like?

CATHY: It took a lot of preparation time. I would make games or find videos. At one point in my classroom, I was lucky that we had a place where kids could watch a video and then I could create questions right after the video and they could record their responses to the questions. There would be a file folder of games.

EDH: So how many centers would there typically be?

CATHY: Most of the time it would depend on how many students you had in your classroom because I always wanted somebody to have a partner. The idea of the centers is to generate some student involvement with each other. So, if I was teaching

twenty-five students, you never wanted more than five. It could be anywhere, honestly, from four to six centers that I had going in my classroom at the same time.

EDH: So, a lot of this, the interaction between the students, would be students teaching themselves. Have I got that right? Since it's not teacher directed.

CATHY: No, it's not teacher directed. There are times when I would have a listening station where they would put headphones on and follow along with a book. Or there would be books about specific topics. We just didn't know what kind of conversations were happening over there in the centers. I was hoping for the most part that they were talking about the text that they were supposed to be reading or they were pulling some meaning from it. As long as they did not attract undue attention by being completely off task, that allowed me to work with my students at my current small group.

EDH: I see.

CATHY: Kind of terrible, huh?

Incoherence and Unshared Knowledge

CATHY: There was a lot of variation among the classes. We had five third-grade classrooms. You're now looking at 125 kids coming from every classroom with hopefully the same "standards-based" education, but not any kind of specific content. I could have taught those standards through an exploration of astronomy or of the rain forest, and my fellow teacher might have taught the same standards through a completely different subject matter—a novel or an old textbook or something she found from a secondhand exchange.

EDH: So different classrooms at the same grade level in the same school are teaching different content?

CATHY: Correct. **There was no shared content at all.** The next day, maybe they were interested in Blackbeard. So we were studying Blackbeard. It was connected through the day but it wasn't connected day-to-day. [My bolding, EDH]

Critical Thinking

EDH: You’re a guide on the side.

MICHELE: Yes. You know, the idea was if you want kids to think critically you need to let them solve their own problems, and I guess my argument to that is, give kids a rich curriculum and let them ask questions about it, and there’s your so-called critical thinking.

EDH: On that point: did you actually spend time on critical thinking as a process?

MICHELE: Yes, I would have critical thinking packets that I gave my kids, but I didn’t see that it made any difference.

EDH: Let us go into that just a little bit more, if you don’t mind, because I’m interested in how much time was spent on your critical thinking packets, and what is a critical thinking packet.

[I wanted to discuss that more because the idea of general critical thinking skills is repudiated by cognitive psychology. It’s one of those concepts (like readability) that was invented to enable student-centered, individualized, constructed subject matter.]

MICHELE: Sometimes I had to make it up. A lot of times I would go to Barnes and Noble, which had a teacher’s section, so this was before the internet was widely used. I would find a little reproducible book that would say “Critical Thinking.” There would be things like analogies and logic puzzles, not content but things of a puzzle-type nature. I would buy it, copy it, put it in a packet, and then I would say to the kids (who were way beyond what I was teaching that day in, say, mathematics) to use their stapled packets. They would engage in something completely different from the math I was teaching that day.

What I found out later is that in a knowledge-based, instructional school children don’t have a lot of extra time to waste on so-called critical-thinking tasks. Every instructional minute matters because we have so much content to deliver. In a typical child-centered

school, teachers will put these critical-thinking packets together for kids because they have more time on their hands.

At my current Core Knowledge school, we just don't have any time on our hands for critical-thinking packets, because every subject carries equal weight. In a knowledge-based school, you are reading, you are writing, you are talking, in every subject area.

Child-Centered Civics

I turned the conversation to the subject of civics, and citizenship and democracy, which seemed remarkably absent under the child-centered, natural-development point of view. It did not seem focused on the particular historical culture and society the child was being inducted into! That would not be natural growth! Instead of "What do I need to know to be a useful, caring citizen?" it became under child-centrism: "How do I grow naturally and gradually to become aware of the wider social world around ME?"

EDH: It was the expanding horizons kind of idea?

CATHY: Yes.

EDH: So, you move from the small group to the neighborhood, then to the city and then to the country, that sort of thing?

CATHY: Yes, correct.

EDH: Expanding horizons didn't give them a lot of history, did it?

CATHY: No, no, not at all.

MICHELE: The social studies standards are such that they learn only the same old stuff: about themselves, their home, and their community.

EDH: Oh, my goodness.

MICHELE: Mind you those so-called child-centered materials were in the form of worksheets or little projects. Let's make a teepee or a totem pole to study Native Americans, and they could take their little packets of papers home. There was little to no content. And I can tell you as an educator I didn't even know where to go to look

for content. But really it didn’t matter, because you teach the big three and that’s really where you spend the bulk of your time.

EDH: By big three you mean reading, writing, and arithmetic?

MICHELE: Yes. Going back to my days in a child-centered school, we did something called project-based learning in my first years. We had to create an “authentic” problem for students to solve in their community. So, my colleagues and I in first grade got together and we came up with a problem. We pretended the local park was going to be closed, and we had to generate a letter-writing campaign to try to keep the park open and provide reasons why the park should remain open.

And so those poor children really believed that they were closing one of their local parks, because we had to make it authentic. And there had to have been some notion of ecology tied to it, I don’t know—maybe people were littering or something. But what can first graders do? They’re learning how to write, and we’re going to have them write a letter. It was just so artificial. They could see through it. They might not know how to write, but they were smart.

Child-Centered vs. Shared-Knowledge Schools

MICHELE: My son Ethan attended a Core Knowledge school, and it was the end of third grade. My husband and I were out to dinner with him one night and my husband said, “So Ethan. What was your favorite subject in school this year?” And he said: “Rome.” And he began with the story of Romulus and Remus, and I’m not exaggerating when I tell you that for one hour we sat and listened to him recite the rise and fall of the Roman Empire in detail. Ethan was in the first class of eighth graders that experienced a knowledge-based school all the way through elementary school. They were our test group. They are all freshmen in college now, and their awards and scholarships and accolades and university choices are just unbelievable.

EDH: We know what the end product is. You’ve just described it—well-schooled children: college for all. But how would you

describe the difference in what is actually going on in child-centered and shared-knowledge classrooms?

MICHELE: Okay. I'll give you a good example. In my daughter's third-grade child-centered classroom, they were given a basic reader. Some of the stories are excerpts of classic literature, and other stories are just stories that a publisher makes up and puts in an anthology.

You come to a Core Knowledge-based classroom, and the students begin their day with the Vikings. During reading, we are exploring the Viking myths and having a rich discussion about that. We go to the domain-based read-alouds, and we're now reading aloud about the Vikings. Everybody feels they're getting somewhere from one day to the next. And they are using sophisticated tier-three words in conversation!

EDH: Would you say the kids are more engaged?

MICHELE: Oh my gosh, they love it. My husband and I used to joke with our own kids. They'd come home from school, and we would say at the dinner table, "What did you learn today?" And they would say, "Nothing." And my husband would then say to them, "Well, then don't go back." And then once they got to a Core Knowledge school we'd say, "What did you learn in science today," or "What did you learn in history and geography?" And they talked and talked about it. Those are the conversations that the kids themselves are having. And I will tell you, the parents of our Core Knowledge school will say to me, "You know, Dr. Hudak, I cannot get over, my son and my daughter come home, and they are excited about school." When kids come back after the summer, they cannot wait to come back to school. There's not this dull "Oh gosh we're here again and we're filling out packets of worksheets again."

These school districts are looking for silver bullets to end the achievement gap, but really, it's not that hard. *Even our neediest kids are now freshmen in college. These were kids that came through my third-grade classroom-struggling students. But by the time they got to the eighth grade, they weren't struggling anymore.*

Effect on Low-Income Students

CATHY: I’m now an instructional coach for a beginning Core Knowledge school in a very high-poverty situation. Some of our kids are homeless; some of them live in a hotel. It’s a very sad situation. This school is now currently in its fifth year, and we are starting to see remarkable progress. What it’s all about is being in those hallways and hearing the kids saying, “Oh, I remember learning that in first grade,” and their being able to build from there. And watching them in sixth grade talking about the Mayans that they learned about in fifth grade. You’re seeing a change in school culture. The children are so excited!

It has been hard because the teachers have to go through a lot of change in mindset to move from a child-centered curriculum to a shared-knowledge one. But now, for the first time in its history, this high-poverty school has moved way up in the rankings.

Cathy on Child-Centered vs. Shared-Knowledge Schooling

CATHY: I spent fourteen years in what I would consider to be a more child-centered classroom, in which I was a primary teacher from preschool to sixth grade. I refer to the child-centered classroom as pocketed, isolated learning. We’d do one thing, then we would go to a different thing. The subjects weren’t connected. So, we did our best. We’d have our standards, and we’d follow guidelines set by the school district.

EDH: Tell me something about the difference between the two kinds of schools.

CATHY: I wouldn’t even know where to start. I will tell you my first memory of being a parent and completely being overwhelmed with emotion by what my child was receiving at the shared-knowledge school.

I had a sixth-grade student who was in a child-centered school, and I had a first grader who was at a Core Knowledge school. We

were having dinner at the dinner table, and I remember this like it was yesterday:

As most parents do, we said to the first grader, “So what’d you learn in school today?” And she said, “Mama, we’re talking about Mesopotamia.” Out of my peripheral vision, I could see my sixth grader at the end of the table with her eyes wide open. My first grader continues to go on about how they’re learning about cuneiform and how Mesopotamia’s considered the cradle of civilization because every civilization since then etc., etc. She’s going on and on. And I remember Taylor, my sixth grader, putting her hands down on the table and saying, “Mesapawhat? Mama, I’m in sixth grade and I’ve never heard of Mesopotamia.” My husband and I made eye contact, and I just said, “See? See? This is why we made the change we made.”

That epitomizes the difference in the education they had. Taylor was the proverbial oldest child. We read to her every night. She had *all* the advantages. The other four came boom, boom, boom, boom. I was in grad school, so we were busy. We didn’t read every night. We didn’t do everything we were supposed to do.

But despite that, those later kids flourished in their knowledge-based primary and middle schools in a way that absolutely changed our family dynamics. Instead of going to the beach every summer, we would go places like Ellis Island or Washington, DC.

Yes. I know that might sound goody-goody, but they wanted to do it. From a parental perspective, you couldn’t give me enough time to speak about the difference in education it makes having a shared body of knowledge that builds up over time.

When they’re in the younger grades, they grow this small seed of knowledge, and then as it’s continued, it cycles up and you’re adding to it. It becomes that whole association and assimilation idea that I learned about in undergrad but was never truly able to help my students gain access to. I knew they had it in their minds somewhere, but they were never able to find it, because they had lots of

little seeds, but nothing built up to a wider scheme of knowledge they could access and add to.

I see that that's what a coherent knowledge-based school does. Students can retrieve and connect things. As teachers, we're not having to guess about their prior experiences. We can absolutely tap into those prior experiences, and we can help them access them.

In the past, at a child-centered school, it was like, "Do you remember that?" "No." But now we can specifically say to a fifth-grade student, "All right, so do you remember when you were in second grade, and you learned about President Lincoln's desire to keep the Union together?" And they all say, "Yes!" So, we as teachers are empowered to be able to specifically tap into that important resource that helps students build their knowledge forward.

EDH: It seems to me that if I can interpret what you are saying, our memories are connected to specific knowledge. To build on past learnings, and even to communicate with the class, you need common reference points. If you can depend on the class having some common background knowledge, then your communications with all the students are better understood.

CATHY: Absolutely. The way that I would compare the two is this: child-centered schools tend to be more compartmentalized. We take our students on day 1 and we go as far as we can with them until day 180. But everything is kind of disconnected and self-contained, and it's different from student to student. Math did not connect to science, which did not connect to history or to language arts.

EDH: I take it in your child-centered days when you received students from somebody else's class, you couldn't depend on all the students knowing the same things, could you?

CATHY: No. I couldn't depend on students to know anything. Here in Charlotte in the child-centered county school, we had five second-grade classrooms, and I was teaching third and fourth grade. On day one of third grade, my second graders would come in with all different kinds of content knowledge. It was "standards-based,"

so theoretically they should be coming in with the same standards. But the way that they got to those standards could have been any subject matter whatsoever. It's much harder to make significant progress with those students.

EDH: It seems to me that a teacher can depend on and build on the children's background knowledge and that students themselves are making more of a community among themselves because they share some of the same background knowledge from the previous grade levels. So, it would make sense that a kind of culture and unity would develop in the student body itself. Is that what you're telling me?

CATHY: A third-grade class at one of the Core Knowledge schools I oversee here in North Carolina is in the middle of studying animal classification. On a recent visit I stepped back and took myself out of the conversation. The teachers had been teaching a long time in child-centered schools, one for fourteen years, the other for twenty-plus. They were both talking about how this is the first time in their teaching career that students are so excited about what they're learning that they're checking books out of the public library. One student brought a snakeskin in, and another an alligator necklace that someone gave him. The school itself is becoming a community. They all have a lot they can share. They have all this knowledge now, and these kids are learning how to access it outside of school. That's so exciting.

EDH: Any final thoughts?

CATHY: I always try to tell skeptical parents and teachers this: "Think about the range of students that you have in your classroom who all are excited by this content. And because that content is so engaging, think how much easier it is to use this content to narrow those gaps and extend students even further. You can do so much more in terms of writing when you put second graders in an authentic situation where they're writing a persuasive letter to President Lincoln from the perspective of an abolitionist. Think of how you

can get your students to understand and be more empathetic about our immigration situation today when they have gained knowledge from the immigration history that they learned in second grade.

For me, I don’t know that I would still be doing this if I did not move to a Core Knowledge classroom—because I was so frustrated. In 2007, when I was able to move and could teach something besides reading skills and math skills, I said to myself: “Oh my gosh, this is why I came into teaching.”

Educating Citizens

EDH: I wanted to ask you one other thing. There’s a subtle decline of patriotism in the country that the Gallup poll keeps recognizing every year, and I’m wondering whether this sort of communitarian approach encourages allegiance, the idea that we’re all in this together and need to make our country better.

CATHY: From my perspective, the two things are connected. In a shared-knowledge school, the students in the music room are practicing the “Star-Spangled Banner”; in another classroom, they are studying the American Revolution—so many opportunities to develop citizenship thinking beyond the school community. Again, you’ve got that shared body of knowledge. I see more singing in the knowledge-based school. I see more general school-wide assemblies where students are talking about current events or talking about our national heroes of all races and backgrounds.

EDH: Absolutely. The original Common School idea that “you kids are the upcoming citizens, and you will define the country” was paramount in those early days. Also, the idea that the more unified we get, the more competent we get, because the more you can communicate with one another, the more competent the country gets.

CATHY: Absolutely. In a child-centered school, everything is so isolated and compartmentalized. I recognize for the most part there are really good teachers out there and they’re working really, really,

really hard. But when you are so focused on what I have to teach my fourth graders, for them to show proficiency on the end-of-grade test, skills become your focus. But when you are focused on the shared curriculum, your perspective really opens up. As a teacher, it puts us back where many teachers were when education was more successful, and we looked at the student in a much broader sense as a future citizen and not just, “I’ve got to get this kid to pass a test at the end of the year.”

EDH: It makes sense to me. Absolutely.

What Shall We Conclude from Cathy and Michele?

I’m enormously grateful to Cathy and Michele for these appalling revelations and insights. The effect of incoherent elementary schooling is to foster national incompetence and social injustice. Such educational incoherence does not induce critical thinking which depends on relevant knowledge. These two teachers have explained why current methods encourage ignorance that enables voters to be deceived and scoundrels to flourish, just as Washington warned us in his Farewell Address.

And let me repeat one telling exchange with Cathy:

CATHY: There was a lot of variation among the classes. We had five third-grade classrooms. You’re now looking at 125 kids coming from every classroom with hopefully the same “standards-based” education but not any kind of specific content. I could have taught those standards through an exploration of astronomy, or the rain forest, and my fellow teacher might have taught the same standards through a completely different subject matter—a novel or an old textbook or something she found from a secondhand exchange.

EDH: So different classrooms at the same grade level in the same school are teaching different content?

CATHY: Correct. There was no shared content at all.

“There was no shared content at all.” Consider the hardship this works upon the teachers and students—and, most of all, upon

disadvantaged students. **The only time disadvantaged students can overcome their disadvantage is when the school lessons are based upon prior knowledge and concepts and vocabulary that have been developed in prior classes within the school.**

But, in our public schools, there is no coherent and common prior knowledge, and those students do not overcome home disadvantage. Child-centrists speak sagely about topics being age-appropriate or not age appropriate. Few research psychologists agree.

This unfairness and second-rate performance are excused by the incorrect claim that our schools are teaching general skills of reading comprehension and general skills of critical thinking. But the fact that these do not exist has now been known in cognitive psychology for a long time. One could not invent a less fair system than one in which there is zero opportunity for the concepts and language of later classes to build upon earlier classes.

It is a system in which content decisions are left up to individual teachers. This second-rate-ness and unfairness are not the fault of our teachers. It is a consequence of the firm reluctance of our state officials to get specific about grade-by-grade topics in the early grades.

But state officials are not to be blamed if their expert advisors repeat sagely the century-old slogans of child-centered, “age-appropriate” education. What works and is appropriate depends upon what has already been learned. Our states need legislators who have learned enough about current cognitive psychology and the incorrectness of outworn child-centered practices to sponsor the Shanker shared-topic principle for each elementary grade.

Both social justice warriors and patriots should be aware of these decisive technical facts behind our current educational incoherence and unfairness. In my experience, we cannot depend upon radical change from our education schools even at our top universities—so ingrained is the child-centered tradition. Its false claim of social

equality, its persistence in incorrect and unfair educational practices continues to march under the false flag of social equality and progressivism. But child-centered education has led to the opposite of social and historical progress. Child centrism has been a successful agent of inequality and social unfairness.

Our state legislators and governors should be compelled by knowledgeable voters of both main parties to require the Shanker Principle of formulating a core topic sequence grade-by-grade in their public schools and instituting a yearly state exam based on those yearly topics. Such an approach is a requirement for effective schools, effective citizenship, and social justice.

Any candidate for governor or for legislator who demurs should be shamed by our state newspapers and other media to produce a statement by a reputable scientist that the plan for education is consistent with current psychological science. I hope that enough public-minded parents and citizens of both parties will recognize that both parties have a deep nation-sustaining interest in reaching agreement on the Shanker Principle for a statewide K–8 topic sequence.

CHAPTER 3

The Most Decisive Educational Experiment in History

A very large-scale demonstration of the principle that a shared-knowledge approach rather than a child-centered approach ought to be offered to *all* children in the early grades deserves the following title: “The Most Decisive Educational Experiment in History.” The experiment is decisive because it is very large, multi-cultural, multi-lingual, and multi-national with millions of experimental subjects.

When a second large democracy decided to adopt American-style child-centered education, its earlier very high position in international rankings (such as the PISA test) duly plunged down to *our* low level. Considering the diversity of cultures and languages involved and the millions of experimental subjects and the concordance of the results with current science, there is good reason to trust the validity of the experiment and to conclude that progressivist child-centrism with its disunified curriculum was the cause of the decline in both nations.

The demonstration might be dismissed by some on the grounds that not *all* the multi-million subjects involved in the two experiments were American children—that several millions of them were French. But I’d counter that the international character of

the natural experiment makes its findings more powerful, not less powerful—especially considering their consistency with cognitive science.

Despite the differences of context and culture between the Americans and the French, our children and their children yielded in the end the same large magnitude of sunken results. The French experiment occurred about thirty years after our verbal decline began to be manifest. And it occurred in France just 20 years after the French Americanized their schooling. The decline was *fully* manifest and recorded in precise detail by the French central government.

The de facto experiment started when the French passed in 1989 a national education law known as the *loi Jospin*. France then introduced our American-style “child-centered” early education on a massive scale. She imposed it all at once upon *all* the public-school children in France. The magnitude and nationwide universality of their change makes the before-and-after results scientifically persuasive—since both declines were explained by the same failure of the Norway shared-knowledge principle and the magnitude of the lowered results are similar in both nations.

The French experiment showed that group-centered education and a shared curriculum in early grades makes children smarter and more literate than individualized child-centered education does. Group-centered early education also better fulfills a nation’s ambition of offering every child an equal chance in life. In both France and the USA, child-centered education has shown itself to be socially unjust.

Here are some reasons why: Group-centered education paradoxically allots **more** attention to the individual child. That’s to be noticed in the difference between the child’s frequent isolation under child-centered arrangements, compared to the predominance in

group-oriented instruction of lively whole-class discussions in which all the pupils can engage equally. That distinction was explained by firsthand testimony in Chapter 2 by teachers who had followed both kinds of schooling. Progress for all is possible when all pupils possess the needed background knowledge to engage in the class-wide discussions and challenges.

When the French ordered their elementary schools school to institute American-style child-centered principles, and when their results started yielding the same depressed and unjust results as ours, and when the number of participants in both our nations came to number in the millions, and when those massive data points came from two different cultures in two different eras and tell the very same tale—and further when the tale is consistent with current science—it’s time to stop beating about the bush and significantly alter both theory and practice.

Here’s the basic story line of the two-nation experiment. First, the physical classroom changed in America, and later, it changed in France. In each case, both nations started removing all those desks facing the adult teacher. Both nations purchased new tables and chairs for each classroom. They bought lots of new child-centered books to furnish the new individualized classroom libraries. Subsequently both nations experienced the same magnitude of decline.

But there were two important scientific advantages to the French version of the same experiment. The change in France was made suddenly, all at once over the whole nation. Then the evaluations of results in France were decisively probed earlier—in the fifth grade not in the twelfth-grade SAT scores. The French did not need to wait until grade twelve to become decisively aware of the decline. Its large *magnitude* was similar in both nations but apparent in France in grade five.

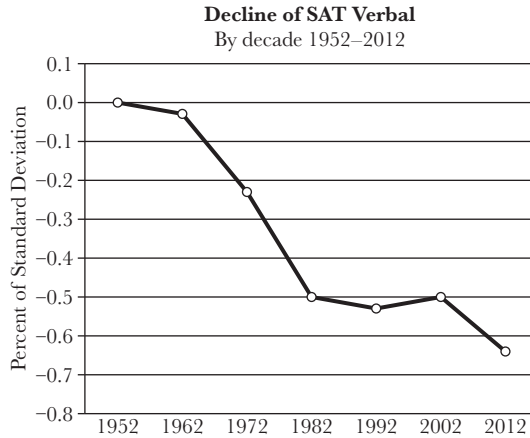
A Decisive Experiment

The fifth-grade data from the French experiment is so massive and so well documented and so consistent with *our* findings that one could reasonably assert that our two-nation experiment is the most decisive educational experiment in history. The French data are especially useful because they not only have kept detailed records nationwide; they also offer definitive earlier results from the mid-elementary grades. These earlier declines exhibit the same magnitudes of decline and unfairness that we exhibited in our SAT scores for the later grades.

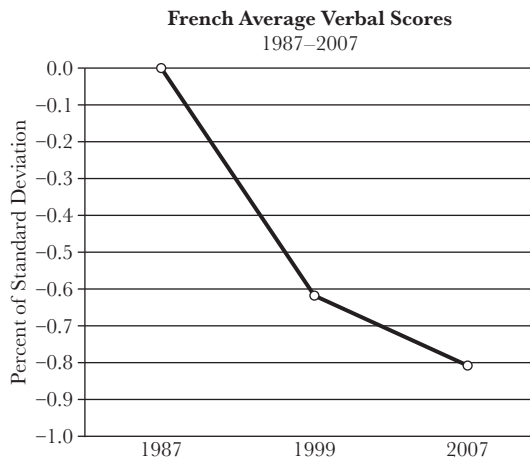
The French have recorded, in addition, detailed *sociological* data that reveal the magnitude of the unfairness that child-centrism perpetuates. The poor declined more than the rich when the French Americanized their schooling. It was a huge effect for an entire group. Rich and poor reached an average decline of about seventy percent of a standard deviation.

The French conducted three massive national *sondages* (soundings) near the end of grade five in three different eras: 1987 (before the 1989 law *loi Jospin*), in 1997, and in 2007. Even in 1997, the results had already begun to show upon fifth graders, and by 2007 the depressed results reached the same levels of decline as our falling SAT verbal scores! It took them twenty years to find out fully, since in the first ten years, the teachers and the furniture were still being “updated.” More important, the French fifth-grade data showed, as our SAT data could not, the *differential effect on children from different family backgrounds*. The social unfairness of child-centered education has now been made highly visible.

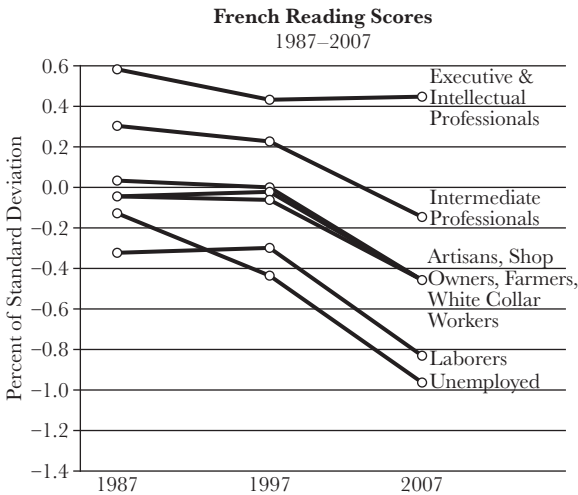
Here first is a chart of *our* own multi-decade SAT verbal decline. (Fully updated charts to the present are in the appendix devoted to the French story.)



And here’s a chart for France, **using the very same metric**: i.e., percent of the standard deviation in the *two*-decade decline in French fifth-grade scores. The French decline was more rapid, because their transformation was introduced nationally all at once for all students. Another difference is that *our* SAT record includes *only* the ambitious students who took the SAT exam. The fuller French demographic dropped as much in two decades as our more select SAT takers dropped in three decades.



Finally, using the very same metric, here is the French decline broken down informatively into social categories. The high-family-income group in France and the USA were getting literate culture at home. *These fuller-demographic records of France strongly indicate that the probable negative effect on our non-SAT takers has been far greater than the negative effect on our college-bound students!* Child-centeredness is anti-egalitarian. Ineffective elementary schooling is hardest on pupils from poor families and disadvantaged circumstances. Here’s the French data usefully broken down by family background: It shows the inequal before and after effect on different social groups.



For readers of this book who are strongly concerned with social justice, this second French chart is a significant and highly reliable admonishment. It is based on precise record keeping and hundreds of thousands of data points. They expose the paradox that the attempt to supply each child with his or her special needs does the opposite. Child-centeredness is much harder on the poor than on the rich.

The *loi Jospin* had introduced child-centered education in 1989. As its negative effects began appearing, President Sarkozy (2007–2012) amended it, and it was amended again later by President Macron (2017 to present).

Current French Reactions

By 2021 Macron had concluded that France would cease paying respectful attention to the educational and social ideas emanating from the United States. He said publicly that those ideas were destroying not only France but also America. But in 2021 Macron also put into effect a change in the “Bac”—the twelfth-grade test instituted by Napoleon. It was already clear that the decline in *that* test was beginning to look like the decline in our verbal SAT—which caused us to make changes in the SAT rather than in child-centered learning. Like us, the French made changes in their SAT—the Bac—instead of reforming their system.

Macron’s comment about American educational ideas was reported by Norimitsu Onishi, in the *New York Times* of February 9, 2021: The piece was headlined: “Will American Ideas Tear France Apart? Some of Its Leaders Think So.” The Onishi story went on to say: “Politicians and prominent intellectuals say social theories from the United States are a threat to French identity and the French republic.” That broad statement referred not just to our child-centered ideas that, according to Macron, threatened French national competence and its national unity.

A chorus of French critics observed that our inaccurate child-centered, developmental ideas had already weakened *American* schooling and America herself. They observed that in the era before the “Americanization” of French schools, their schooling had been both effective and egalitarian.

But wait! Doesn’t teaching common topics make children think alike? *Au contraire!* The wider knowledge gained systematically by greater curricular coherence makes students (and citizens) less gullible and more independent-minded. Witness the current credulity of many of our citizens who not only believe political lies but who also credit the notion that Bill Gates conspired with the Russians to inject mind-controlling molecules into our arms along with the Covid vaccines.

Both Fairness and Unity

This book tries to explain *why* we first made the idea-change to child-centered education in the 1940s and 50s. I hope that clarity about precisely why it was a scientific mistake as well as a social and ethical mistake will help induce a needed revolution in our thinking about early education.

Paradoxically, the Jospin law of 1989 had aimed at inducing greater fairness in France. It stated that too many low-income students were making low scores on the Bac—the school-leaving exam taken by each French child. Ironically, it has turned out that the *Loi Jospin* began to lead to ever lower and more socially determined scores on the Bac (the *twelfth*-grade school-leaving exam) and to *greater* discrepancies between rich and poor students—the very disparity that the *Loi Jospin* had aimed to correct.

Lack of commonality in background knowledge causes *all* students in *every* social category to become less literate. And the effect on low-income students has been more severe and has caused the “earn-ing-gap” between already-rich students and poor students to widen!

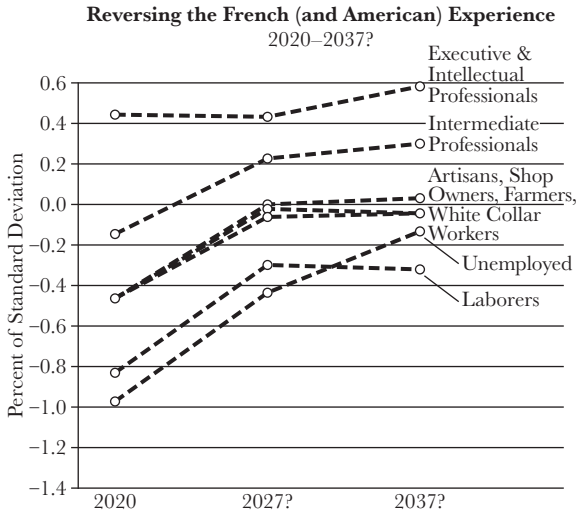
A Nation at Risk

In 1983, alarmed at our own SAT decline, we Americans issued a well-known call to arms in a report titled *A Nation at Risk*. At a similar point in *their* decline, French observers now began issuing similar reports and books. There were serious studies filled with data and charts by top scholars, and there were popular exposés by writers like Jean-Paul Brighelli. His 2008 book title translates as: *The Castaways of the School: 40 Years After Jospin: The Decline*. His later book on that theme (2023) has become a bestseller in France. Its title is: *The Idiot Factory: Towards the Educational Apocalypse*. It's not a scholarly work, but Brighetti's call for a “democratic elitism” regardless of race or ethnicity is among our own best democratic traditions.

From what American and French psychologists have now told us, it has become clear that for any nation to overcome home disadvantage by good schooling, we must abandon the scientifically discredited, romantic concept of “natural development” and impart

directly to *all* young children the shared knowledge and vocabulary that enables everyone in the classroom to understand and participate in class—and then to transfer that shared learning to understand later grades. Let’s call it the grade-school ratchet.

To accomplish that aim, old-fashioned, effective whole-class instruction is a far more effective method of reaching all students—even when addressing them individually within the whole-class environment. To reach all students from the earliest grades requires the systematic class-wide buildup of shared knowledge. The classroom becomes not just more egalitarian but also more interesting. To gauge what would happen to us, we can simply reverse the meticulously documented outcomes of France. Here’s what abandoning child-centered myths would look like (except the category “laborers” would also rise):



That’s what the French nationwide experiment has told us. (I describe the French experience in more detail in the appendix.) It’s important that we pay close attention to their detailed exposé. If we do that, it could have more effect than *A Nation at Risk* did and would be an even more important French gift to us than the Statue of Liberty.

CHAPTER 4

Why Romantic Schooling Must Go

(The Disney Story)

Romancing the Child

Before turning to the Disney story, let me recapitulate some history. During the wartime 1940s, the United States developed the atom bomb and became the “arsenal of democracy.” Both History and Nature seemed on our side. It was then that our new self-confidence *fully* parted us from our intellectual roots in John Locke and the Enlightenment. We adopted the confident romantic approach to education. Locke had said that a child is born with a blank slate ready to receive a culture. The romantics held that a child is like a seed that *develops* according to “Nature’s holy plan” (Wordsworth).

The theory change that occurred with the romantics is best understood by those intellectual historians who paint with a broad brush. They see in the twentieth century not only two world wars—in 1914–1918 and in 1939–1945—but also a gradual shift in America from the Enlightenment tradition in education to the Romantic tradition. One historian of the general change, M. H. Abrams, published a famous book in 1963 entitled *The Mirror and the Lamp*. It described the literary shift from accurately mirroring the world as it is to illuminating the world with the lamp of one’s God-given individual genius.

In education, that romantic shift gradually occurred in our schools. It was indicated physically by the gradual shift in our classroom furniture from children facing the teacher who mirrored cultural reality, to tables where children faced one another to enable their individual lamps to shine and their seeds to develop. Our earlier, Enlightenment tradition had offered the child a direct, explicit, ratcheted induction into the language and traditions of national citizenship. Now, under child-centered, natural unfolding, the child's inborn seed of development was to be nurtured by our schools' turn to romanticism.

The reality of human psychology is too complex for such simple mirror/lamp metaphors, but it's very telling that evolutionary psychologists have gradually moved away from the romantic term "development" (unfolding) for educating the mind of the child to the more Lockean term "ontogeny," a word that, to a lay person, has no metaphoric connotations at all. Using "ontogeny" and "ratcheting" instead of "development" does make a practical difference in the emphases of our thinking about human education. An emphasis on development stresses individual unfolding. An emphasis on culture stresses the customs and language and shared knowledge of a tribe.

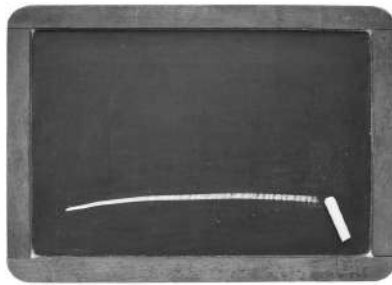
Such shared knowledge is imparted most effectively through whole-class instruction in a sequence of commonly shared materials, not from helter-skelter child-chosen booklets from the classroom library. Since our children need to learn many of the same things to master a common language, whole-class instruction is by far the fairest and most effective way to teach our children the shared national language with its shared background knowledge. It not only yields superior learning and a higher level of literacy, but it also instills shared loyalty to American traditions and to fellow citizens.

Earlier, when our scores were higher, those children's desks were all in a row, and the teacher was the tour guide for our cultural

system of language, knowledge, and morality. Our instruction held up a mirror for American citizenship. Our students' reading scores were among the highest in the world. Paradoxically, the mastery of shared language in early grades enables an effective individuality later—not to mention higher SAT scores. We do *not* need to buy new classroom furniture again. We need to change the furniture of our minds. Whole-class instruction can also work with tables and chairs.

The romantic tradition of schooling (which we introduced in a very few schools in the 1920s) began taking over our schools by the 1940s. Romanticism emphasized the child's innate, productive God-given nature. It held that "the soul that rises with us, our life's star had elsewhere had its setting and cometh from afar" and "trailing clouds of glory do we come from God who is our home." That's Wordsworth—the archetypal romantic poet of nature.

I observed earlier that the United States had been founded on ideas from the European Enlightenment that had repudiated the notion of innate ideas. We adopted the teaching of John Locke for our psychological as well as our political principles. His metaphor of a "blank slate" referred to the blackboard that teachers and pupils in earlier schooling wrote upon with chalk. (The blank slate pictured below can still be purchased at Amazon.)



A Blank Slate Ready to Be Written Upon

The later, "progressive-education" idea was based on 19th-century romanticism. Its metaphor was that of a seedling ready to unfold. "Fair seedtime had my soul," said Wordsworth. Here's a seedling:



A Seedling Ready to Grow According to Her Nature

A plant grows according to its innate nature. (Note the etymological connection of the two words “innate” and “nature.”) That seedling metaphor for the human mind had been rejected by Locke and Hume, who discarded the old notion of innate ideas.

Innate ideas were resuscitated by the romantics. Our post-1940s romantic educators generously applied botanical images and metaphors. Education was not to be just receptive instruction from the outside—a mirror. It was to be chiefly a natural growth from within. It was a God-given seed that fuels the innate natural impulses of the individual child.

Anything that interfered with the child’s authentic, natural development was “artificial” and destructive of God’s implicit (seeded) plan for each individual child. There persists this implicit religious premise in child-centered education that helps account for the fervor of its advocates.

The Romantic '40s

By the 1940s in the United States, romanticism had increasingly replaced our earlier Enlightenment ideas about schooling. We had explicitly used both the metaphor of the blank slate and its physical reality, the blackboard. Romanticism’s counter premise was that Nature and Instinct know better than our “meddling intellect”

about how to school a child. That phrase “meddling intellect” was coined by Wordsworth:

Sweet is the lore which Nature brings;
Our meddling intellect
Mis-shapes the beauteous forms of things:—
We murder to dissect.
Enough of Science and of Art;
Close up those barren leaves; [of a book]
Come forth, and bring with you a heart
That watches and receives.

In the 1940s we took the plunge. Our American version of romanticism wasn’t as earnest as Wordsworth’s, but millions of Americans in the 1940s sang a song whose refrain invoked nature. Here’s one of the stanzas:

Folks like us could never fuss
With schools and books and learnin’.
Still, we’ve gone from A to Z,
Doin’ what comes naturally
Doin’ what comes naturally.

I know that song because I’m ancient enough to have sung it. It was one of the hits of the era. It topped the hit parade. It was recorded by Ethel Merman, Betty Hutton, Judy Garland, Bernadette Peters, Zuzi Quattro, Dinah Shore, and the DeMarco Sisters.

But despite its claim that “we’ve gone from A to Z doing what comes naturally,” there’s no natural-growth way to get from A to Z—either literally or metaphorically. Our Roman alphabet is no more natural than the Greek alphabet, or the Hebrew, Persian, or Chinese systems of writing. To go “from A to Z” you must emphatically do what comes culturally.

The word “nature” means inborn, innate, and that’s simply false for the particularities of any human culture. Locke was right about

the blank slate, at least with regard to literacy and the learning of tribal lore. Once we acknowledge that simple truth, perhaps we will be sensible enough to go back to his metaphor of the blank slate for most of our schooling. If we do so, our reading scores will go up. And so will our unity and patriotism and the level of our politics.

An Example: Romanticism and Disney

The Disney Corporation's Celebration School sounded like yet another fairy tale from the creators of *The Little Mermaid* and *The Lion King*. It was supposed to be the ideal school, set in Disney's newly created Florida community, Celebration. According to the *New York Times*, the school was to follow the "most advanced" progressive educational methods, such as multi-aged groups in which each child goes at his or her own pace; individualized assessments instead of objective tests; teachers as coaches rather than sages; projects instead of textbooks.

These romantic methods do not work well, and the Celebration School was an extreme version. As the *Times* headline put it, there was "Trouble at the Happiest School on Earth." The *Times* article began:

The start of the school year here is just a few days away, so it was no surprise that there was a line of parents at the Celebration School office the other day. But the reason for the line was: they were queuing up to withdraw their children.

Parents said they were dissatisfied with the lack of clear academic goals and measures of achievement, as well as with the lack of order and structure that accompanied the progressive methods. That was an extreme example of the romantic developmental approach. Common sense enforced less extreme adherence to its principles. But the seed of romanticism had been well planted in America. Nothing could stop the sentiment that natural, rather than artificial, modes of education are healthier and better.

The distinguished sociologist James Coleman conducted in the 1980s carefully controlled, large-sample research that demonstrated the ineffectiveness of progressive education methods in raising general academic achievement and in closing the achievement gap between advantaged and disadvantaged students. Coleman found that Catholic schools achieve more educational equity than public schools because they follow an explicit rich and demanding curriculum; provide a structured, orderly environment; offer lots of explicit instruction, including drill and practice; and expect every child to reach minimal goals in each subject by the end of each year.

One would think that the failures of progressivism might induce more skepticism among both its adherents and the public. Yet the theories of progressive educators remain highly influential among teachers, administrators, and education professors. Romanticism is a religion of nature that subtly sways our minds. Progressive educational ideas have proved seductive because their appeal lies not in their practical effects but in their links to our inherited nature-worshiping romanticism.

That disembarkation to these shores of romantic poets and philosophers came well after the Mayflower. The romantic progressives posited that education should be a natural process of growth that flows from the child's natural instincts and interests. The word "nature" in the romantic tradition connotes the sense of a direct connection with the holy, lending the tenets of progressivism all the weight of religious conviction.

Under the spell of romanticism, we know in advance, in our bones, that what is natural is better than what is artificial. This quasi-religious conviction has been the absolute truth against which experience itself must be measured. Any failure of educational practice must be due to faulty implementation of romantic principles—or perhaps faulty interpretation of educational results. We must not take the results of reading tests at face value! (The beliefs of progressivism in education are quasi-religious and are impervious to unfavorable data.)

Natural Supernaturalism

The religious character of progressivism is rarely noted because it is not an *overtly* religious system of belief. Romanticism is a secularized expression of religious faith. T. E. Hulme was right to define it as “spilled religion.” Romanticism, he said, redirects religious emotions from a transcendent God to the natural world. Transcendent feelings are transferred to everyday experience—like “treacle spilt all over the table,” as he put it.

M. H. Abrams called it “Natural Supernaturalism.” Logically speaking, that’s a contradiction, but it captures the romantic’s faith that a divine breath infuses natural human beings and the natural world. For the romantic, the words “nature” and “natural” take the place of the word “God” and give nature the emotional ultimacy that attaches to divinity.

As Wordsworth confidently put it:

One impulse from a vernal wood
May teaches you more of man,
Of moral evil and of good,
Than all the sages can.

Botanical metaphors are so pervasive in modern American educational literature that we take them for granted. The teacher, like a gardener, should be a watchful “guide on the side, not a sage on the stage.” The word “kindergarten,” invented by romantics, means “children-garden.” Romantics began mistranslating the Latin word *educare* as meaning to unfold. But *educare* actually means “to lead out.” It has overtones of “follow the leader.” It implies deliberate instruction according to adult social and cultural norms. It does not mean “growth” and “development,” which imply that education is analogous to a seed growing into a plant according to its divinely imparted nature.

The same sentiment that animates the romantics’ fondness for nature underlies their celebration of individuality and diversity.

The idea that diversity is superior to uniformity originates in the pantheistic plenitude of God's creation. "Nature's holy plan," as Wordsworth put it, unfolds itself with the greatest possible variety. To impose uniform standards on the individuality of children is to thwart their fulfillment and to pervert the Plenitude of Providence. Hence education should be child-centered, not directly society centered. Motivation should come from the child's inherent interest in a subject, not through artificial rewards and punishments.

Nature Is More Complicated than That

Plato and Aristotle also based their ideas about education, ethics, and politics on the concept of nature, just as the romantics did. But it was *human* nature. The classical awareness of our self-centered arrogance, cruelty, and greed does not assume that a providence will cause our natural impulses to yield positive outcomes. On the contrary, most civilizations and religions have recognized that human nature is a battleground of contradictory impulses and appetites. Selfishness conflicts with altruism; the fulfillment of any one appetite conflicts with the fulfillment of others. Human nature is something that needs to be e-duc-ated, *led* by earned wisdom, not passively, instinctively followed.

Hence various non-pantheistic religions, when focused on our human world, find ways to stress the need for civility and security. They extol the principle of moderation, the golden mean, not because moderation was a good in itself but because it is the most likely route to safety and social peace combined with individual happiness. Absent a faith in the hidden design of *natural* providence, the mode of human life most in accord with nature must be, according to most human wisdom across cultures, *via media* that obeys rules—whether they emanate from gods and priests or from secular authorities. Given this cultural tradition of social rules, the romantic faith of trusting instinct and nature is an outlier. It's not a

successful or durable code that we should be encouraging our teachers and our children to follow.

Renewed interest in evolutionary psychology has given the classic-romantic debate new currency. Darwinian moral philosophers such as George Williams reject the notion that evolution should be a direct guide to ethics or to education. On the contrary, evolutionary psychology reintroduces in its own way the classical idea that there are inherent conflicts in human nature—both selfishness and altruism, both a desire to possess one’s neighbor’s spouse and a desire to get along with one’s neighbor.

The adjudication of these contradictory impulses requires anti-natural constructs such as various religions impose. Most of the learning required by modern schooling is not natural at all. The modern multi-racial nation and the exigencies of industrial and postindustrial life are very recent phenomena in evolutionary terms. They require kinds of learning that are constructed artificially and sometimes arduously on the natural cast of the human mind—a point that has been made very effectively and in detail by David Geary, a research psychologist specializing in children’s learning of mathematics.

The romantic versus classic debate extends beyond the reading and math wars to the domain of moral education. The romantic tradition holds that morality (like everything else) comes naturally. The child, by being immersed in real-life situations and being exposed to good role models, comes to understand the need for sharing, kindness, honesty, diligence, loyalty, courage, and other virtues. Wordsworth’s account of his own education, which he called “Growth of a Poet’s Mind,” contained a section entitled, “Love of Nature Leading to Love of Mankind.”

But that sequence does *not* happen naturally—as parents with several interacting offspring know. The romantic wishes to encourage the basic goodness of the natural soul, unspoiled by habit, custom, and convention. The trans-romantic or post-romantic

knows that habit, custom, and convention are keeping us alive. The romantic training for compassion and morality is to develop the child's creativity and imagination—two words that gained currency in the romantic movement.

Classic caution ended when the human soul was conceived as inherently godly. Now the claim was that the creativity and imagination went hand in hand with moral education. With that emphasis, the subject matter of “language arts” in the earliest grades was not moral tales but a focus on fairy tales and poetry. Explicit moral instruction gave way to the encouragement of creativity and imagination. “Imagination,” said the romantic poet and thinker Samuel Taylor Coleridge, “brings the whole soul of man into activity.” When we exercise our imaginations, we connect with our divine nature and develop our moral sensibilities.

Romance vs. Justice

So far, progressive education, as a substitute religion, has not been made accountable for its practical and moral failures. But its walls may be beginning to crumble, and none too soon. With as much certainty as these things can be known, we know that analytical and explicit instruction works better than inductive, implicit instruction for most human learning. To be analytical and explicit in instruction is to be artificial. The cultural is natural to humans; that has been our evolutionary breakthrough. We must learn from history and experience, not from a pre-ordained seed.

The romantic thinks nature holds God's holy plan. The modernist and the pragmatist do not. And neither does the scientist. In the end, the most pressing questions in the education wars are perhaps not empirical, scientific questions but ethical ones concerning the unfortunate *social* consequences of the progressive faith, especially the perpetuation of the test-score gaps among racial and economic groups. Are we to value the aesthetics of diversity and the theology of spilled religion above social justice?

That is the unasked question that needs to be asked ever more insistently. Economic and political justice are strenuous goals. They cannot be achieved by doing what comes naturally—or even doing what comes multi-culturally. As soon as almost *all* Americans learn a thing, it's American, whatever else it might have been to start with. It has become part of our shared knowledge.

We cannot hope to argue against a religious educational faith that is fundamentally impervious to refutation. I'm an ancient person. When the early romantics lived long enough to experience the disappointments of life, they uniformly abandoned their romanticism. This happened to Blake, Wordsworth, and Coleridge. One of Wordsworth's most moving works was the late poem "Elegiac Stanzas," which bade farewell to his faith in nature.

Similar farewells to illusion were penned by other romantics. There is a potential instability in what M. H. Abrams named "natural supernaturalism." Romantic religion is vulnerable because it is a religion of this world. If one's hopes and faith are pinned on the faith that reading, arithmetic, and morality will develop naturally out of human nature, then experience will contest that faith. Romanticism in our schools is getting very old. Why should we wait until it further harms us and our children?

CHAPTER 5

Decisive Evidence for the Common School

The Grissmer Study

In spring of 2023, Professors David Grissmer and Daniel Willingham issued a press release about a seven-year longitudinal study that Grissmer, the lead researcher with a large team, had carried out. The results were strong and clear. Nobody could find fault with the punctilious methodology that Grissmer had used. Grissmer declined to communicate with me at all, over the years, since the Core Knowledge program was the “treatment” program.

In this chapter, I’ll quote the press release in full and then discuss the commentary that the Grissmer research generated. It reveals the powerful pressures American researchers are under not to rock the child-centered boat. I’ll also report recent similarly meticulous work by James Kim and his colleagues at Harvard and North Carolina State Universities, comparing shared knowledge instruction with our currently dominant child-centered instruction. Finally, I’ll venture to amplify the implications of the Grissmer researchers in language any parent or concerned citizen can understand regarding the implications for future policy.

In recent years such “imposition” of shared knowledge has been rhetorically dismissed by being identified with political and cultural conservatism. It’s also dismissed with the discussion-ending

rhetorical question “Who decides?”—thus implying that we must protect ourselves and our children from ideological impositions.

That question “Who decides?” was of course answered by Al Shanker and the Constitution. The states have a legal duty to decide, but it’s a duty they have evaded by issuing grade-by-grade “standards” that are devoid of specific content—as Michele Hudak and Cathy Kinter explained in Chapter 2.

The “Who decides?” argument rejects imposing “the same ‘Anglo’ culture on everybody.” Although the rejection *sounds* liberating, it has been an imprisonment for all pupils—especially disadvantaged ones. The whole point of effective elementary education is to impart full membership into a national tribe—as anthropologists and evolutionary psychologists inform us. To change and improve the culture of the tribe is a worthy aim that needs to include all groups—especially in a democracy where the people rule.

The literate nation state does not break away from that human, tribal educational universal. National education is the latest and most powerful manifestation of that universal. That’s well understood by immigrant parents who desperately attempt to achieve full tribal membership for their children along with the potential empowerment that such full tribal membership offers. Topmost among those empowerments is mastery of the tribal language—that is, high literacy. This elemental aim of early education, well understood by our founders, needs to be supported by every American interested in social justice and greater income equality.

To think that the shared language accumulated by history is something innate and essential is romantic nonsense on both sides of the dispute. Well-informed leaders in a multi-ethnic democracy will ensure that all the generations of the land are highly literate and inter-communicative. The chief disadvantage (besides physical malnourishment) of our disadvantaged K–8 pupils is a language/knowledge disadvantage. Advantaged children understand better the language of the classroom and the language of the books that

they will read than do disadvantaged children. Advantaged students have bigger grapholectal vocabularies to start with.

Hence a major ingredient of early disadvantage is a deficiency of grapholectic, widely shared knowledge. So, unless deliberate arrangements are instituted in the curriculum to diminish that social gap, our schooling will not overcome the literacy gap between advantaged and disadvantaged children. But we have shown in Chapter 1 that a carefully sequenced, commonly shared curriculum *can* in time erase the gap between advantaged and disadvantaged children. That same shared-knowledge approach also enhances the grapholectal knowledge of young, advantaged children. All pupils flourish under a well-constructed, shared-knowledge curriculum

Early Notice of Results The following press release was issued by three of the researchers, David Grissmer, Daniel Willingham, and John Byrnes, and reads as follows:

Robust Effects of Core Knowledge Curriculum on Reading

The results of a long-term study conducted by University of Virginia researchers show that the Core Knowledge curriculum had a large beneficial effect on state reading test scores.

The cumulative (K-6) long-term effect for all students was approximately 16 percentile points. To put this gain into perspective:

U.S. students placed 15th among 50 countries taking the 2016 PIRLS 4th grade Reading/English test, but national student gains like the gains realized in this intervention would place the U.S. among the top five countries.

Although short-term RCTs [random control trials] on the effect of a knowledge-rich curriculum have been published, this is the first long-term study and the first to show sizable effects on a state standardized test.

Eight of the nine schools in the study had mostly the children of middle- and high-income parents. At the remaining

*[low-income] school, the curriculum showed even larger effects on English Language Arts, and significant benefits in math and science. **These gains were large enough to eliminate the achievement gap associated with income.***

[My bolding.]

The six-year study used a lottery methodology: 2,310 students applied to attend one of nine oversubscribed Charter schools that use the Core Knowledge Curriculum, beginning in kindergarten. The 688 students selected in the lottery were compared to unselected students who attended school elsewhere. All schools were in the greater Denver area. The outcome measures were grade 3 through grade 6 scores on the Colorado state-wide PARCC (Partnership for Assessment of Readiness for College and Careers) tests for English Language Arts and Math. Scores from a state Science test (designed by CTB/McGraw-Hill and administered only in grade 5) were also assessed.

(NOTE: the treatment began in kindergarten and extended to grade 6. The ELA and Math measures were taken yearly from grades 3 through 6, and the science test was administered once, in Grade 5.) Separate analyses were conducted for Intention to Treat (ITT) and Treatment On Treated (TOT). Treatment on Treated refers to the effect of the Core Knowledge curriculum on test scores when students actually experienced the curriculum. The TOT effect size was 0.473 across grades 3-6 for English Language Arts, with significant effects at each grade. Effects were not significant for math. The overall TOT effect size on the science test administered in Grade 5 was 0.30, a significant effect.

This effect differed by socio-economic status of student bodies, however. In the eight schools with middle- and high-income students, the effect size was 0.445 for English Language Arts and non-significant for math. For the low-income school, effects were larger: 1.299 for English Language Arts and 0.997

(a significant increase) for math. When the science test scores were analyzed separately by parental income, the effects were positive but not significant for both groups.

Intention To Treat refers to individuals who were meant to be exposed to the treatment. In this case, these were students who won the lottery; some lottery winners chose not to attend Core Knowledge Schools and so did not receive the treatment. The ITT effect size was 0.241 across grades for English Language Arts, with significant effects at each grade. Effects were not significant in math. The overall TOT effect size on the science test administered in Grade 5 was 0.15, a significant effect. ...

The Response from the Field

This press release was largely ignored, but the study was the subject of an earnest report in *Education Week*. That publication reported two reactions before the whole subject was dropped. Liberal vs. Conservative reaction went this way: *Education Week* quoted an expert who complained that the Core Knowledge curriculum is guided by a “master narrative.” That sounds ominous—perhaps even white-supremacist. It implied that the Core Knowledge curriculum is a tendentious, undesirable enterprise that can be dismissed without going into details.

The second response was: “Well, that’s just one experiment.” The implication was: “Let’s wait and see. Let’s not get too excited; maybe another seven-year experiment will yield a different result.” That makes a solid and punctilious piece of research sound like the toss of a coin. The upshot of both responses was: “Let’s not get unsettled by Professor Grissmer’s meticulous work; another piece of meticulous work might yield a different view. We don’t need to adjust our ideas.”

That’s it: “It’s white-supremacist, and it’s not technically conclusive.” Neither reaction is correct. The curriculum embraces and succeeds with all races, and it is not “just one experiment.” Its

results are consistent with “the most decisive educational experiment in history” described in the work of researchers in two nations and millions of students as described in Chapter 3. The so-called “master narrative” is the language and stories bequeathed to us by our confused and complicated American history. And that tradition and “narrative” includes a standard assortment of heroes and villains, masters and slaves.

So, neither the “master narrative” nor “just the one experiment” reaction is accurately descriptive. And *Education Week* does not cover itself with Pulitzer Prizes by sticking with the establishment in the face of such decisive anti-establishment findings. Just one study? Recently there are two further massive supporting studies—the Kim studies—which I’ll describe below. There are *no* credible studies that contradict the Grissmer study nor the Kim Transfer Effect showing the superiority of teaching shared knowledge.

Accurately Interpreting the Grissmer Study

The researchers who conducted the Grissmer study state that the magnitude of their results has not been equaled by *any* prior controlled intervention. When they were asked by *Education Next* to explain the implications of that finding for school policy, the researchers suggested that ways should be found to integrate “general knowledge” more systematically into the teaching of reading.

I’m enormously grateful to David Grissmer and his colleagues for undertaking this long-range (seven-year) technically solid research. And I’m grateful to *Education Next* for permission to reprint its article in this book’s appendix. Professor Grissmer and his colleagues, as fastidious researchers, have kept their distance from me, the originator of the program. They wanted to remain free of any collaboration or potential collusion. But now that the results are in, anyone is free to interpret the implications for future policy. The researchers

have recommended that “general knowledge” should play a larger coherent role in the early grades. But that term “general knowledge” needs to be made more precise if it is to be useful to states and to future curriculum designers.

The practical question can be stated this way: All of the comparison programs imparted “knowledge” to the K–6 pupils. Why did the knowledge selected by the Core Knowledge program prove to be strikingly more effective for pupils? They all had to take the same unforeseen reading test and math test and science test. Why was the knowledge imparted by the other school programs less effective knowledge? Clearly the term “general knowledge” applied by the Grissmer researchers is too vague a descriptor to be immediately useful.

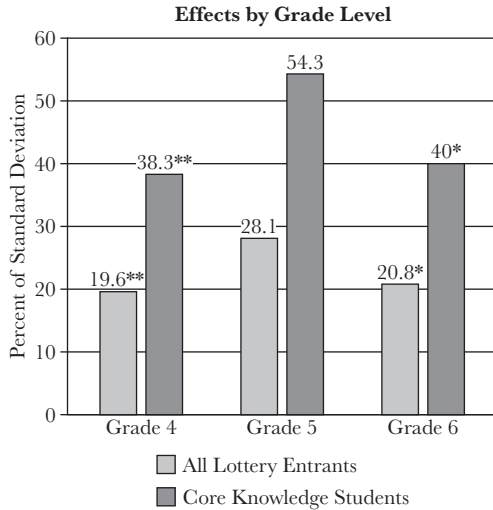
The most useful knowledge needs to be researched and imparted to all the pupils in the class. *What is the background knowledge that is shared by literate members of the national tribe?* Note: that is precisely the estimate that every writer needs to make about her audience. It’s an estimate that Jeff Litt’s disadvantaged seventh graders had to make to construct an effective debate strategy.

The knowledge must be “shared by literate Americans.” Nobody can know what *specific* knowledge is going to be probed on a future reading test for fourth and fifth graders. The state of Colorado does not offer a “statewide curriculum framework,” as Al Shanker rightly asked every state to do. The programs that did far less well than Core Knowledge on the Colorado reading tests had to be imparting *some* subject matter in their curriculums, even if a lot of it was from child-chosen readings.

The difference was that, with Core Knowledge pupils, the readings were commonly shared and deliberately chosen from the canon of knowledge that literate Americans tend to know (the Norway Principle). Thanks to the graphic designers of *Education Next*, here are the results:

Effects on Reading by Student Grade (Figure 3)

The benefits of attending a Core Knowledge charter school remain steady across grades 4-6, suggesting the effects may have stabilized by 4th grade.



Note: See Figure 1. * indicates significance at the 95 percent level. ** indicates significance at the 90 percent level.

Source: Authors' calculations

Let's posit what I think is true, that the key difference between the two groups of students lay in the efficaciousness of the “background knowledge” they received in grades K–4. It wasn't just “general knowledge” that the Core Knowledge (CK) program tried to impart. It was taken-for-granted knowledge that makers of reading tests thought fourth graders should know. Moreover, all the children in the Core Knowledge schools were cumulatively gaining the *same* shared background knowledge.

Such an estimate of tribal knowledge—shared background knowledge—is the kind of estimate that all of us make when we speak or write: “What can I take for granted, and what do I need to explain or disambiguate?” It's part of what constitutes a culture.

That is a basic skill for every human speech act on or off a reading test. By every speaker or writer some shared knowledge is taken for

granted already to exist in the minds of the listener or reader. If the author's estimate is right, communication occurs. If it isn't, communication does not occur. It was right more often with CK children in the Colorado experiment, only because the creators of the CK curriculum had consciously understood the issue. They understood that the "reading levels" idea was inadequate and that speakers and writers must always gauge the probable background knowledge of their audience. The items on a reading test are excerpts from writers who have made those cultural estimates.

I've used the term "cultural literacy" for that silently shared background knowledge. The Grissmer study can stand as an example of its practicality. Just as effective writers and speakers in a nation must make those estimates about what can be taken for granted, so must test makers and curriculum makers. What the Grissmer study shows is not that "general knowledge" is needed in elementary schools but that "tribally shared background knowledge" needs to be imparted as the basis for tribal communication.

Under child-centric individualism, we have devised pseudo-scientific conceptions of "reading levels" and "Lexiles" that pretend to scientific accuracy. Contrast that with the Norway Principle that freely uses the idea of "shared background knowledge" and clearly explains that it is different in each literate modern nation. That insight was circumvented when our schools introduced individualized texts plus general notions of "reading levels." As the name "Core Knowledge" suggests, we have tried to inventory and sequence the silently assumed, taken-for-granted background knowledge of American literacy and to impart it explicitly so that all the pupils would be able to understand the language of books and of the classroom.

A side effect of that approach has been overcoming the gap between advantaged and disadvantaged pupils—as the Grissmer study found. A large element of disadvantage is ignorance of shared background knowledge. Only one school in the Grissmer study was of low-income pupils, so it did not overstress its finding that those

pupils *fully* overcame their disadvantage. Yet that was the finding! And it further confirms the theory!

Explanation of the Results: Reading Is Interpretation!

Core Knowledge did a better job of preparing literate middle schoolers because the “core” in its name tries to instill the knowledge that able popular writers take for granted in their writing: Those writers have learned what can remain unspoken and unwritten. It is always silently “there” in speech and writing: in shared culture, shared background knowledge as described in the Norway Principle.

There’s a special field devoted to determining the nature of correct answers on a reading test. It’s the theory of verbal interpretation technically named “hermeneutics.” The subject is paramount in biblical and literary studies, and it specializes in precisely those features that are key to making a good grade on a reading test. Hermeneutics explains how and why to disambiguate statements and choose only the *implications* that are intended by the author.

Note the “pli” in “implication.” It means “a fold or layer.” “Explicit” means folded out, and implicit means “folded in.” Every good reader has to do both—to get rid of wrong meanings and also to be sensitive and attentive to implied meanings—as the Norwegian Parliament explained. That’s *interpretation*. That’s what reading *is*—once the physical conventions of the writing system have been mastered.

The Norway Principle explains that modern verbal interpretation depends on the specific shared background knowledge of a national group. The superior results of the Core Knowledge pupils occurred because the Core Knowledge curriculum, as the name implies, deliberately imparts the *shared background knowledge* that enables an American reader to disambiguate and amplify meanings from American texts. “Core Knowledge” can also be defined as “shared background knowledge” in a tribal culture—the Norway Principle.

Such specific, *communally shared unstated knowledge* (not just “general knowledge”) is the selective principle of the curriculum

that gave the CK pupils the edge on the Colorado reading tests. It should be helpful to curriculum makers to understand that they need to impart American taken-for-granted literate shared knowledge so pupils can correctly interpret what they read and thus make high grades on reading tests.

Consider the structure of the normal items on a reading test. The pupil is given a passage to read. Then she's given several questions about the meanings of the passage, and the pupil is then required to choose one out of four or five candidate answers to each question. On a well-constructed reading test, there are often at least two of the candidate answers that are plausible—sometimes with only subtle differences between them. Which answer shall be chosen? That would seem to be a matter of interpretation and explication.

A Sample Test Item

Here's a "paragraph comprehension" passage from a practice test:

Anyone who pans for gold hopes to be rewarded by the glitter of colors in the fine material collected in the bottom of the pan. Although the exercise and outdoor activity experienced in prospecting are rewarding, there are few thrills comparable to finding gold. Even an assay report showing an appreciable content of gold in a sample obtained from a lode deposit is exciting. The would-be prospector hoping for financial gain, however, should carefully consider all the pertinent facts before deciding on a prospecting venture.

Only a few prospectors among the many thousands who searched the western part of the United States ever found a valuable deposit. Most of the gold mining districts in the West were located by pioneers, many of whom were experienced gold miners from the southern Appalachian region, but even in colonial times only a small proportion of gold

seekers were successful. Over the past several centuries the country has been thoroughly searched by prospectors. During the depression of the 1930s, prospectors searched the better-known gold-producing areas throughout the nation, especially in the West, and the little-known areas as well. The results of their activities have never been fully documented, but incomplete records indicate that an extremely small percentage of the total number of active prospectors supported themselves by gold mining. Of the few significant discoveries reported, nearly all were made by prospectors of long experience who were familiar with the regions in which they were working.

The lack of outstanding success in spite of the great increase in prospecting during the depression of the 1930s confirms the opinion of those most familiar with the occurrence of gold and the development of gold mining districts that the best chances of success lie in systematic studies of known productive areas rather than in efforts to discover gold in hitherto unproductive areas. The development of new, highly sensitive, and relatively inexpensive methods of detecting gold, however, has greatly increased the possibility of discovering gold deposits which are too low grade to have been recognized earlier by the prospector using only a gold pan.

And here is one of the test items on that passage:

1. Which of the following would be the best title for the passage?
 - A. Prospectors Strike It Rich
 - B. Technology Finds Gold in the United States
 - C. The Gold Rush—A Big Hoax
 - D. Few Find It—Many Have Tried

That is a telling item because both C and D are plausible right answers on the surface, depending on how the reader gauges the

tone and implications of the piece. If the passage were an exposé of the futility of digging and panning for gold, then C would be right; but if the implied tone is non-judgmental history, then D is the sole right answer. *In other words, a person's sensitivity to tone and nuance on the "paragraph comprehension" segment is also being tested—not just straightforward word knowledge.* Your "reading level" includes your sensitivity to such nuance. It makes a big difference in your reading score.

That difference is not just one of accurate "reading" but also of accurately *interpreting* the tone and nuance of what is read. Yet tone and nuance are things that are not directly stated; they are inferred by the reader. And how does one make such inferences? It's not just by "word knowledge," which is preliminary, but also by "paragraph comprehension," which depends upon accurately explicating implications.

Such guessing is the essence of our unique human language comprehension faculty—what Tomasello names "shared intentionality." It is required to explain how the human child develops language to start with. And such "shared intentionality" also explains a key difference between low and high levels of reading skill. *To be proficient in a national language is to be proficient in a culture's shared knowledge and shared nuance of unstated tone and value.* High levels in the interpretation of what is read depend upon shared background knowledge and shared values and shared nuance between author and reader.

Such nuanced meanings are mastered not by word lists but by unstated cultural background knowledge—by a young pupil's widening acquaintance with the timbre and overtones of Americanese and its shared implicit values. These are not to be gained by a "language arts" course alone but also by a curriculum that is integrated and coordinated, in short by a shared curriculum that follows the Norway Principle of shared knowledge.

Implications for Curriculum

Such goal-directed integration of subjects in the early curriculum helps put young readers in sync with authorial intent. It helps enable their accurate interpretation of what they read. The Norway Principle implies that a chief aim of early education in our early grades is to impart the shared knowledge and values of our American literate culture. Paradoxically that includes our common valuation of “diversity,” which is not the same as valuation of verbal misunderstanding. Background knowledge that is silently shared between reader and writer alone enables widespread *accurate understanding and interpretation*. What is required is not just accurate reading of what is stated but also accurate interpretation of what is implied.

Such shared background knowledge is the key linguistic difference between “advantaged” and “disadvantaged” pupils. It’s also the key difference between the Core Knowledge approach (which systematically imparts such background knowledge) and the other reading programs that were being offered in the Denver area. The Core Knowledge approach to reading as both a skill and as an initiation into a literate culture can account for its effectiveness with students from all backgrounds—and the remarkable catchup of disadvantaged pupils. They become good interpreters because they are gaining the shared background knowledge of a nation—no matter their diversity in other domains. A common language is no enemy of diversity but rather its peaceable promoter.

The elementary schools of a nation—especially of a democracy—have a duty to supply that enabling interpretive knowledge to all young pupils so they can read, write, fulfill their personal potentials, and become useful, discerning citizens. To fulfill that aim, our American schools need to have a more accurate and capacious grasp of what effective reading and writing silently entail, namely: American shared background knowledge.

To Sum Up

The recent Grissmer and Kim studies complement each other. And so does that huge grammar-school experiment in France conducted with twelve million pupils over twenty years. The Kim studies offer an interesting twist. Instead of submitting comparative pupil results to a standard state or local literacy test, as the Grissmer team did, Kim, and a team of highly sophisticated statisticians, decided to compare “transfer effects” as between the shared knowledge curriculum group and our normal unshared-knowledge, child-centered group of students.

Such analogies and metaphors are staples of good teaching. BUT they can only work effectively if all the children in the class are familiar with the taken-for-granted analogy. To understand “my love is like a red, red rose newly sprung in June” I need to know or imagine what such a rose is. That’s the Kim transfer effect in a nutshell—so long as you know what a “nutshell” is.

The Kim study showed that students who have received shared knowledge gain collectively more shared knowledge on their own. Moreover, it also follows that by means of that collectively shared knowledge, their teacher is enabled (as George A. Miller explained) to use that shared foundation to convey new knowledge effectively to all the students in the class (i.e., achieve “far transfer” for all). That greater quantity of conveyed knowledge to all students in the class is simultaneously a plus for learning and a plus for equality.

There are *no* controlled studies showing the contrary—namely that you could achieve greater equality with child-centered approaches than with shared knowledge approaches. But, thanks to the French, we do have a remarkable study involving twelve million pupils with meticulous record-keeping of their socioeconomic origins—a level of massive and precise record-keeping equal to that of smaller empirical studies. Anybody familiar with France will nod when I describe their centralized record-keeping as “meticulous.” As a reminder, the methods, conditions, and controls of the experiment are detailed in “*Lire, écrire, compter: les*

performances de élèves de CM2 à vingt ans d'intervalle 1987-2007." The study is instantly available online and instantly translatable by Google Translate.

So, *Education Week* to the contrary, there is not "just one study" showing the technical superiority of shared-knowledge schooling! That comment conveniently interprets Grissmer et al. as probing a single proprietary language arts program, Core Knowledge Language Arts. But that language arts program did not even exist during most of the seven-year Grissmer study. *Rather, the key variable was the whole shared-topic curriculum that, as the Kim study showed, enables further learning and vocabulary building by all students, regardless of home background.* A shared-topic curriculum (in the Grissmer study, it was the Core Knowledge Sequence) yields far better reading results than an unshared-topic curriculum.

And that raises a too-often ignored but key technical point: Results on reading tests can never be solely attributed to a language arts program. Reading researchers rightly take account of the home contribution to literacy by parceling the pupils into socioeconomic categories. But in addition to those SES categories, researchers also need to take account of the whole of the child's curriculum when reporting on progress in reading.

That was a crucial influence on the favorable Grissmer findings—the shared knowledge character of the Core Knowledge instruction vs. the child-centered character of instruction in the control group. That is what was being determined by the Grissmer study in Colorado and by the post-*Loi Jospin* study in France.

All such findings depend on results from reading tests in some form. How else could one probe pupils' reading ability? So, let's remember the Willingham doctrine about reading tests: **"A reading test is a knowledge test in disguise."** An elementary program that systematically builds knowledge shared by literate people in the wider nation will yield better reading results than a program that doesn't build such background knowledge. Current science shows

why the Core Knowledge *shared topic sequence* was the chief cause of the superior reading results found by Grissmer—not just a language arts program.

So, although the Grissmer study is the only controlled longitudinal study of the effects on education equity and attainment by the specific Core Knowledge curriculum, it is far from the only study showing the effect on verbal comprehension by shared knowledge curriculums. The evidence on that principle is overwhelming and outlined in my book *Why Knowledge Matters*. To pretend that it's just one relevant experiment is immensely misleading.

Moreover, there's another inherent advantage to topic commonality in a school besides the “near transfer” that is described in the Kim study. Common topic knowledge among the members of a class enables the on-site teacher quickly to effect far transfer for all students in the class—an immense help to fast learning for the whole class and therefore to *equality*. That built-in equality principle, independent of home background, is immensely important for social justice.

Warm thanks to David Grissmer and James Kim and their co-workers for offering impeccable technical confirmation of common sense! Common topics are common sense! Shared knowledge in early education is the lifeblood of the American ideal of equality.

Further Reading:

- Bruce, Bertram C. (1981).; Rubin, Ann D.; & Starr, Kathleen S.. Why readability formulas fail. *IEEE Transactions on Professional Communication, PC-24*, 50-52. Also, as Reading Education Report No. 28 (1981, August). Urbana, IL: University of Illinois, Center for the Study of Reading, and BBN Report No. 4715 (1981). Cambridge, MA: Bolt Beranek and Newman.
- Thierry Rocher, (2008) “*Lire, écrire, compter: les performances de élèves de CM2 à vingt ans d'intervalle 1987-2007.*” https://media.education.gouv.fr/file/2008/23/9/NI0838_41239.pdf

Leigh S. Wilton (2019), Evan P. Apfelbaum, and Jessica J. Good, “Valuing Differences and Reinforcing Them: Multiculturalism Increases Race Essentialism,” *Social Psychological and Personality Science* 10, no. 5 (July 2019): 681–89, <https://doi.org/10.1177/1948550618780728>

Anders Ericsson, (2020) *Handbook of Expertise and Expert Performance* (Cambridge Handbooks in Psychology) 2nd Edition,

Cristina Bellés-Obrero and Emma Duchini, (2021). “Who Benefits from General Knowledge?” *Economics of Education Review*, Vol. 85, Dec.

Kim, J. S., (2022) Burkhauser, M. A., Relyea, J. E., Gilbert, J. B., Scherer, E., Fitzgerald, J., Mosher, D. & McIntyre, J.. Longitudinal Randomized Trial of a Sustained Content Literacy Intervention from First to Second Grade: Transfer Effects on Students Reading Comprehension. *Journal of Educational Psychology*. Advanced Online <https://doi:10.1037/edu0000751>

Kim, J. S., (2024) Gilbert, J. B., Relyea, J. E., Rich, P., Scherer, E., Burkhauser, M. A., & Tvedt, J. N., February 26). Time to Transfer: Long-Term Effects of a Sustained and Spiraled Content Literacy Intervention in the Elementary Grades. *Developmental Psychology*. Advance online publication. <https://dx.doi.org/10.1037/dev0001710>

Grissmer, D. (2024), et al., “How Building Knowledge Boosts Literacy and Learning: First causal study finds outsized impacts at ‘Core Knowledge’ schools.” *Education Next*, 24(2), 52-57.

CHAPTER 6

The Ratchet Effect in the Fateful Early Grades

What we really need—at the very least—are statewide curriculum frameworks and statewide assessment systems. Then, students and teachers in every school will know what kids are responsible for learning and whether they have learned it. (Albert Shanker, “Where We Stand,” *New York Times* Dec 11, 1994.)

Nobody with common sense would peg the great labor union leader Albert Shanker as a political conservative. But in his educational and linguistic conservatism he exemplified the paradox that political liberalism and the ideals of equality and democracy *require* linguistic conservatism and commonality.

How else could equality of opportunity be achieved? How else could intergenerational equality be achieved? Or national unity and community? After the French Revolution, Napoleon grasped the connection between equality of opportunity and linguistic commonality when he re-instituted the French Academy to make nationwide language standards to ensure commonality of language usage in the nation.

The aesthetic romanticism of diversity and of individualism run counter to the hardheaded universalist impulses of America’s founding. Albert Shanker wanted everybody to master the common

standard print language. He was right. That's still the need in every nation everywhere in the modern world, including Switzerland with its multiple literate languages. If the people are to rule in a democracy, language mastery must be the common intellectual currency of all voting citizens from all generations and subgroups.

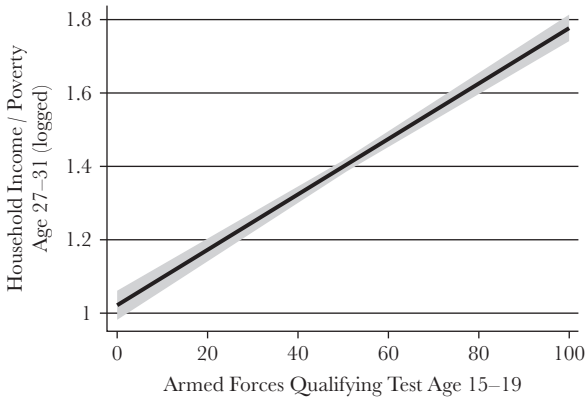
If this principle runs counter to our romantic celebrations of diversity and pluralism—so what? Are those romantic sentimentalities of higher value than equality of opportunity? Political equality and economic equality depend upon interracial, inter-ethnic linguistic equality. And linguistic equality depends upon shared, unspoken background knowledge—to be realized universally by a nation's schooling. The above-quoted Shanker principle would assure that “students and teachers in every school will know what kids are responsible for learning and whether they have learned it.”

Universal high literacy must be a key educational and linguistic goal in a democracy. And we now know a lot more about literacy and language mastery than Napoleon did. One key advance has been in our understanding that language mastery involves not just word definitions and spelling and standard pronunciation and grammatical forms—but *also mastery of the implicit, unstated knowledge shared by all fully literate people in a nation*. To understand any utterance correctly, there has to be shared background knowledge between writer and reader, speaker and listener.

This linguistic universal—that we need to possess national shared background knowledge when we deploy the national grapholect—has immense practical implications within a modern nation. Take, for example, the U.S. armed forces. In their need for qualified personnel, they have recently become very flexible in accepting cultural diversity. Under certain circumstances, beards are OK. Mustaches too. Turbans are allowed. But that flexibility ends when it comes to the exams for literacy: On the Armed Forces Qualification Test, which helps determine what rank you are eligible for, there are two verbal sections, one entitled “Word Knowledge” and the

other named “Paragraph Comprehension.” Those tests are quite demanding, and they are also accurately predictive of effectiveness.

Of *course!* The armed forces must be highly demanding about proficiency with language. In the military, written and oral commands must be stated clearly and understood correctly—as a matter of life and death. Moreover, there are similar needs for communicative competence in civilian life. To back up that modern fact, the sociologist Philip Cohen of the University of Maryland has determined that a teenage score on the Armed Forces Qualification Test consistently predicts that person’s income level in later civilian life. Here’s a chart of his findings. The horizontal is the verbal score as an adolescent; the vertical is the income level in later life.



What has caused this correlation between one’s literacy level and one’s income? Accurate language production and comprehension are needed not just in the military. They are needed also in most positions of responsibility in modern life. Hence there is a double value yielded by mastery of the grapholect to gain for higher-paying jobs. Accurate communication and comprehension are key *not only in giving and obeying orders but also in learning new things and communicating with others accurately and effectively.*

High literacy and verbal mastery thus have high economic and social value. In modern life and in every modern nation, high

literacy is a key to social and economic fairness. Some people in the romantic tradition argue that every person has a right to her home ethnicity. That's true. *But in every modern, multi-ethnic nation, there has been just one route to economic and social equality and fairness—and it lies in mastery of the national grapholect.*

But there's room for lots of variations on the theme. Teaching the grapholect still leaves room for local ethnic knowledge. The national character of modern schooling leaves room for local variations that enable children from other cultures to feel more at home in the American grapholect. All American children *should* feel welcome! In the USA it's essential that our schools (like our armed forces) abandon any hint of linguistic or cultural snootiness.

At the Core Knowledge Foundation, we have made sure that diverse, multi-ethnic stories and poems are successfully embedded with mastery of the standard grapholect. And that added dimension can be tailored to special school populations. That welcoming stance is a promising direction for the American elementary school curriculum to take in diverse localities. Some might complain: "That's just tokenism," which is true. But tokenism has positive value! By contrast, *deficiency* in mastering the background knowledge of national literacy is incompatible with equality of opportunity, learning power, and earning power.

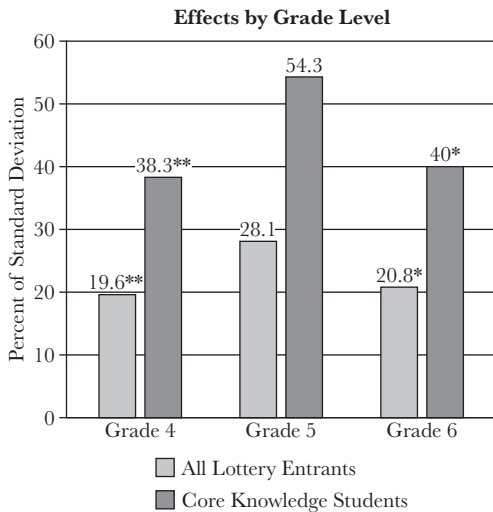
The positive real-world results of the Core Knowledge approach support that view, as does the high popularity of such an approach with parents and children from diverse cultures. Parents of ethnically diverse children agree with its combination of token cultural accommodations plus stern mastery of the national grapholect. A telling example from an earlier chapter: I mentioned that each year in the South Bronx *some twenty-five thousand* preschoolers from low-income Black and Hispanic families in the South Bronx enter the lottery for some two hundred places in eight Core Knowledge charter schools. Twenty-five thousand per year! If citizens were able to vote on the matter, with the option of bringing the shared CK

kind of curriculum to *all* South Bronx elementary schools, how do you think the vote would come out?

Those South Bronx parents agree with the shared-literate-culture principle, which leaves room for further multicultural materials and emphases, depending on the current student body. Parents have observed over the years the economic consequences of the Cohen-correlation between mastery of the grapholect and later annual income. They like the practicality of including ad hoc local culture with grapholectic mastery plus flexibility in the multi-ethnic stories and poems and songs of the early curriculum. That multi-ethnic material can enter the early curriculum without changing the inter-generational core knowledge that yields high marks on reading tests and high income in the workplace. Schools can and should convey both. When they do, this is the result:

Effects on Reading by Student Grade (Figure 3)

The benefits of attending a Core Knowledge charter school remain steady across grades 4-6, suggesting the effects may have stabilized by 4th grade.



Note: See Figure 1. * indicates significance at the 95 percent level. ** indicates significance at the 90 percent level.

Source: Authors' calculations

Shared Background Knowledge

The basic shared background knowledge needed for literacy in a nation is the same for every single one of its adult citizens. Just as the nation’s grammar and spelling are normalized, so also normalized is the shared background knowledge that enables adult citizens to understand each other in oral and written speech. That national shared background knowledge changes slowly over time. In each generation it must be updated and be imparted to all pupils by the nation’s schools.

It would be misleading to end this book by leaving the impression that only charter schools furnish examples of the highly effective elementary schooling that America needs. The charter schools that I’ve described are *not* the only public schools that offer well-planned shared topics grade-by-grade and thereby provide every child with the background knowledge needed to take the next step in learning. There are regular public schools—including some in high-poverty neighborhoods—that follow the shared knowledge approach and thereby achieve the same high literacy and egalitarian outcomes in regular public schools as in the charter schools described in prior chapters.

The Lyles-Crouch School, Alexandria, VA

Let’s take a look at what a brave principal has made of a regular public elementary school in the Washinton DC area—in Alexandria, Virginia. Its principal, Patricia Zissios, had become persuaded by other shared knowledge enthusiasts. She decided to introduce the Shanker kind of topic commonality into her school. It was a brave move, because the Core Knowledge movement at the time was widely denounced as being a “hyper-conservative” effort to “turn back the clock” and impose “Anglo culture” on everybody.

Gradually, thanks to independent-minded school leaders like Pat Zissios (recently retired), the Core Knowledge approach is becoming in several areas the latest thing. In case that sounds like a commercial, please note that nobody at the Core Knowledge Foundation

gets a penny of royalty on any school materials. In fact, the literacy program and other subjects can be downloaded for free as “open educational resources.”

The Lyles-Crouch regular public school is in a low-rent area of Alexandria, VA, and used to be an all-Black school before desegregation. Now it’s mixed but still educates many Black students and must accept all pupils in its district. Some years ago, Dr. Patricia Zissios wrote me as follows regarding the composition of her student body:

Today, we have 441 students, 10% ELL [English Language Learners] (mainly Ethiopians speaking Amharic), 10% special education (with citywide autism class), and 28% living in poverty. We are 55% white, 30% black, 5% Asian/Pacific Islander, 7% Hispanic, & 3% other. Our mobility rate is 20% due to military families and state department personnel living in our attendance zone.

It’s a very challenging, very American student body. Nonetheless, Dr. Zissios went on to say:

Over the last three school years, we have outperformed all other schools in the Alexandria City Public Schools. We have had all scores in the 90th percentile or above. (In fact, in the subject of history, we achieved 99%; one student failed the exam.) Because of our excellent passing rates, over the last ten years, we have been awarded the Virginia Board of Education’s Distinguished Achievement Award (2007–2010; 2012–2016) and Virginia Board of Education’s Award of Excellence (2010–2011, 2016–2017 have been recognized as a Best School in 2012 and named Top School for 2017 by *Northern Virginia* magazine. Our current scores put us in the top 5% of the entire Commonwealth of Virginia for academic achievement.

Those data are eloquent. What about the topic sequence that is being followed by the school—the *Core Knowledge Sequence*? **How can a public school, required to follow the district curriculum, also follow the *Core Knowledge Sequence*?** Therein lies a tale. All over America, the official curriculum is often vague.

For, child-centered tradition opposes “lock-step” education for all. It encourages child-chosen books and child-constructed knowledge under the general principle of “constructivism.” Both the “readability” theory and the “constructivist” theory are faulty; they have proved damaging to quality and fairness. Yet those two theories currently govern much of our American elementary thought-world. Yet no mainstream scientist that I have met agrees that project-based, constructivist learning is effective, or that *general* skills of reading comprehension and critical-thinking exist. Those general skills were posited to enable individual choice of readings under the child-centered approach. But human skills tend to be domain specific. Those posited general reading-comprehension skills do not exist; they are culture-specific.

Those two erroneous ideas—constructivism and reading-skill-generalities—were conjured up to support the romantic goal of enabling the child to follow her own natural bent. Those technical errors were also indirectly useful to state officials who became relieved of the politically parlous job of setting a definite curriculum framework. As Al Shanker understood, that is *the* single most important educational improvement for our public schools.

The wider public needs to understand this deep need for the Shanker principle so that our elected officials will be equally at risk in whether they follow the Shanker imperative or they don't. It was their evasion of that curricular responsibility in Alexandria which explains why a public school like that of Pat Zissios in Alexandria could adopt the *Core Knowledge Sequence* (or its equivalent) and still fulfill the vague state and district standards.

When I check the website of the district where Pat Zissios's school is located, this is the curriculum description statement that I find: (As you can see, **any** poetry, any fiction, and any nonfiction texts could fulfill these structural requirements.)

English Language Arts • Plot Development in Fiction
• Gaining Meaning from Informational Text • Discerning Main Idea in Non-Fiction • Examining Author's Craft in Narrative Writing • Reading and Writing Persuasive Texts • Studying the Power of Words in Poetic Texts

No wonder Pat and her teachers had the space to choose specific Core Knowledge texts. As Cathy Kinter and Michele Hudak observed in Chapter 2, such total freedom has in fact ended up in isolating each classroom and child, making effective whole-class and inter-class instruction impossible. Such lack of specificity in the guidelines enabled Pat to adopt the specific framework of the *Core Knowledge Sequence*. But that's not the usual result, as Cathy observed in Chapter 2 to my question about that:

EDH: I take it in your child-centered days when you received students from somebody else's class, you couldn't depend on all the students knowing the same things, could you?

CATHY: No. I couldn't depend on students to know anything.

Yet we must also concede a sympathetic understanding of this curricular vagueness. These official documents are also political documents that need to be accepted by diverse groups. Such lack of grade-by-grade specificity avoids a great deal of heated controversy—but ultimately at the expense of excellence and fairness for pupils.

When and if our parents and civic-minded citizens *demand* grade-by-grade concreteness and commonality in the critical early grades, only then will we see on a big scale the dramatic improvement

that Pat Zissios and others using shared-knowledge curricula have achieved.

The shared-knowledge elementary school is far more egalitarian than the individualistic child-centered school. It has demonstrated that it is far more effective technically in fostering literacy than the child-centered school is. This book has shown in detail why the false goddess of the child's "nature" is not a reliable source. What's needed is a shared-knowledge curriculum and, as Al Shanker noted, tests based on that specific curriculum.

Consider the issue of fairness and progress for all. Not to have a definite curriculum, not to have tests based on that curriculum is simply to favor already-advantaged pupils. When teachers and parents realize the truth of that simple fact about testing and equity, it ought to persuade any fair-minded person and anyone interested in offering effective education to the most talented and energetic young people—regardless of home background.

Shared Knowledge and the Concept of "Speech Community"

Literacy in a nation depends upon a *national* shared base of background knowledge. It was true in the era of blackboards and still true in the age of TV and the internet. If, owing to faulty school theories, that national shared background knowledge is not spread equally within the nation, if the nation is splintered into cultural enclaves with cognitive walls between them, then national unity dissipates.

The communicative need for shared background knowledge does not at all exclude diversity of views. But that grown-up political diversity is not the chief emphasis of elementary school, where national shared background knowledge needs to be gained *before* we divide ourselves into literate Democrats and literate Republicans. We need to learn how to be *competent* before we reach the age when we need to decide how we will vote. According to research outlined in this book, step-by-step commonality of lessons needs to be the

rule in a K–8 school. Some of that cited research, especially by James Kim and David Grissmer, has been detailed in these pages.

Commonly shared background knowledge underlies both Fox News and MSNBC. American Standard English—the American grapholect—depends on taken-for-granted knowledge widespread in the nation. It’s also the body of shared knowledge that is being probed on the Verbal SAT test and the AFQT and other reading tests where our scores have been declining.

The False Goddess of Complexity

In recent months I’ve seen welcome challenges to the individualistic view of literacy, along with challenges to the false theory that reading comprehension is a general skill with definable levels of complexity management. Let that word be spread! Literacy is **not** a general skill. It is a culture-specific skill, dependent upon specific, unstated background knowledge shared between author and reader. A nation’s literacy therefore depends upon its schools inducting its future citizens into this literate speech community—as the Norway Parliament unanimously resolved. For the reader’s convenience, here again is the Norway statement:

It is a tenet of popular enlightenment [i.e. the universal education of a people] that shared frames of reference must be the common property of all the people—indeed must be an integral part of general education—to escape avoidable differences in competence that can result in social inequality and be abused by undemocratic forces. Those who do not share the background information taken for granted in public discourse will often overlook the point or miss the meaning. Newcomers to a country who are not immersed in its frames of reference often remain outsiders because others cannot take for granted what they know and can do; they are in constant need of extra explanations. Common background knowledge is thus at the core of a national

network of communication between members of a democratic community. It makes it possible to fathom complex messages, and to interpret new ideas, situations, and challenges. Education plays a leading role in passing on this common background information—the culture everybody must be familiar with if society is to remain democratic and its citizens sovereign.

Let's sum up: The complexity idea is incorrect because it assumes that task complexity can be determined from the words of a text. That is incorrect. Actual verbal complexity is determined by the words of the text *plus* the presence or absence of specific taken-for-granted knowledge in the individual reader. If that knowledge is absent or is only partly present, the text will be more complex than if the shared knowledge is present in the reader's mind. **Hence real-world complexity for a reader *cannot* be determined by the text alone. Moreover, the notion that the reader's "level" of complexity management is a general level is also inaccurate. Skills are "domain specific." That doctrine includes complexity-managing skills.**

Expert writers —those who write bestsellers—have a sense of the background knowledge that can be assumed and what must be explained in a readership. **This widely assumed background knowledge in a specific national culture can be systematically imparted to every child by our schools.** Education is the constitutional duty of the individual states, so an American state or two need to start things off by following the Shanker injunction.

We need to understand why this is an inherent *duty* of state officials and why it should be accomplished in a bipartisan way—once the need becomes more widely understood by the voters. That will happen when the voters get sophisticated enough to demand instituting the Shanker principle. In our current, fraught culture wars, the key point to notice about shared background knowledge is that

supplying shared background knowledge systematically is a key principle of an effective curriculum in every modern nation and every modern literate language.

The claim that such literate background knowledge is “lily white” is to commit the genetic fallacy. Argue that with Chinua Achebe! In Nigeria, it’s ebony black! It is ignorant racism to make such a claim. Worse, it’s a sin against the principle of equal economic opportunity, as illustrated by Professor Cohen’s chart. It’s an arrogant put-down of those South Bronx families who have chosen the shared-knowledge Shanker principle of curriculum over the abstract vagueness of this:

English Language Arts • Plot Development in Fiction
• Gaining Meaning from Informational Text • Discerning Main Idea in Non-Fiction • Examining Author’s Craft in Narrative Writing • Reading and Writing Persuasive Texts • Studying the Power of Words in Poetic Texts

It is simply false to claim that the universality of the Shanker principle is “lily white” or “Anglo.” Tell that to the 195 million inhabitants of Nigeria. The principle of shared national background knowledge is as colorful as we care to make it. The scientific validity of the shared knowledge principle is particularly important for American Black students, who currently score below white students nationally. But that’s not the case in Core Knowledge schools, where Black students are often among the top pupils and where their home culture is deliberately represented and honored in the Core Knowledge curriculum.

As the Norway Principle emphasizes: the background knowledge needed is not racial or “ethnic” but national, and in a big multi-ethnic nation, agreement needs to be reached about what elements go into the national, multi-ethnic repertoire. Now that we know more about the need for shared unstated knowledge, agreement needs to be reached not just about linguistic forms but also about

our shared background knowledge. That is a *state* duty in the USA. And the first state to fulfill its duty will find that its schools have become the best in the nation.

This book has shown that there's a lot of relevant science behind these assertions about the importance of common background knowledge. Nobody with psycholinguistic credentials will disagree with that basic idea. "*Shared* intentionality" between individuals is necessary to an understanding of all human speech, as Tomasello and his associates have shown.

Literacy is *not* a general skill with general levels. It is a culture-specific tribal skill that depends upon gaining specific tribal background knowledge. If the tribe happens to be a big multi-racial modern nation, the racist flavor of rejecting American literacy because it started out being used by white people is an impractical way of showing off one's superior virtue at the expense of practical progress. It helps nobody except the purveyors of those fashionable, incorrect theories about literacy and race.

Literacy in any nation depends upon the national shared background knowledge of a national grapholect and of a national speech community. That knowledge should be democratically imparted to rich and poor, advantaged and disadvantaged. The current Core Knowledge Sequence is just one example of the kind of curriculum needed to induce high literacy for every child. The *Sequence* works as the evidence shows. But a different sampling of the shared background knowledge could work equally well.

According to the Constitution, such a grade-by-grade topic sequence would be specified by each state. The individual states have the constitutional obligation to educate their children. That means that they are the entities that *should* be making such outlines. We can hope that the success of the Core Knowledge example will encourage the states to start performing their duties. The place to start is with the second element of the Shanker Principle.

Better Reading Tests

Professor Daniel Willingham correctly states that “a reading test is a knowledge test in disguise.” Professor Michael Tomasello, in consonance with the Norway Principle, says that a reading test is a test of *shared* background knowledge in disguise. In the early grades, when children are in the process of gaining the needed shared literate background knowledge, *the only fair and productive tests are those that are based only on the background knowledge that has been assigned in the curriculum.* That’s the only efficient way of including every child in the class. As Shanker stated: our states have the duty of specifying what children should know at each grade level and of creating tests that determine whether schools are teaching that shared knowledge. He called for “statewide curriculum frameworks and statewide assessment systems.”

Such curriculum-based tests are fairer to the pupil in two ways: they do not favor pupils of advantage who have gained literate knowledge at home, and they hold schools accountable when they fail effectively to impart the local curriculum. It could induce a new era in school effectiveness and fairness.

Confidence and Patriotism

The American grapholect can be mastered without denigrating home cultures. But the other side is also true: economic success and political participation in a democracy depend upon mastery of the national grapholect—a mastery that is the only secure road to economic fairness and political health. Shared background knowledge is also the road to higher achievement in subjects beyond reading and “language arts.” One reason for the high achievement of Core Knowledge pupils in all subjects is that the language arts program does not limit itself to literary genres. That’s especially useful for disadvantaged pupils. It offers repeated exposure to technical terms and concepts in the other subjects being learned.

It assures that the language of the classroom is more likely to reach all pupils in all subjects.

Thus, while poetry and stories are not neglected in a good language arts program, neither are other domains of knowledge in that school year. In that way, “language arts” enhances the general linguistic competence of the young child in navigating *all* the subjects. It is a great way to build confidence as well as competence. One consequence of romantic child-centeredness has been not just in reading but also in community and patriotism—and patriotism not of the warlike kind or flag-waving kind but of the Nathan Hale kind with a willingness to sacrifice for the good of the wider national community. Competence, confidence, and community—those can be gained by *all* young people in those fateful early grades.

Competence and confidence are excellent traits for citizens of a democracy. High literacy arms them with resistance to facile slogans. Self-confidence releases them from obsessive self-concern and induces a concern for others in their speech community and nation. It induces a concern for the well-being of the whole national tribe and a skepticism toward manipulative rhetoric. That’s a good note on which to end this book—not about reading theory and romanticism but about unlocking a young American’s competence and confidence and ability to be both a productive person and a patriot devoted to the well-being of us all.

THE END

APPENDIX I

“The Educational Fall of France”

(This is a chapter from my book *Why Knowledge Matters* (2016) with kind permission from Harvard Education Press, and special thanks to Laura Clos of the Harvard Education Press.)

TWO NATIONS AT RISK: THE USA AND FRANCE

To speak of “The Educational Fall of France” seems at first rhetorical overkill—equating mere lower scores in French elementary schools with the military defeat of France in World War II. But it isn’t just an over-the-top play on words. It was the explicit theme of an important 2007 book edited by Laurent Lafforgue and Liliane Lurçat: *La Débâcle de l’École: Une Tragédie Incomprise*. *Débâcle* is the term the French apply to their country’s military defeat in 1940. Lafforgue, who is a highly distinguished mathematician and a recipient of the Fields Medal—a kind of Nobel Prize in math—then developed that historical analogy in his introduction to the essays. His view, which I agree with, is that top French intellectuals made big avoidable mistakes in 1989, just as higher-ups had made serious, avoidable military mistakes in 1940. The collection of essays that follows his introduction makes a highly illuminating book on the disaster that has recently befallen the French school system. It is a “misunderstood tragedy” as the subtitle states.

I first decided to write this book after I ran across the astonishing 2007 data compiled by the French Ministry of Education, recently placed on the Web by Paola Mattei of the University of Oxford. It shone bright new light on our own school system. The data showed another educational system that, like our own, had adopted skill-based, individualized, educational principles, and subsequently declined from being among the best and most equitable large school systems in the world to being one of the worst and least equitable. The United States in the 1980s had similarly dropped from the top rank of international rankings into mediocrity in those rankings. The data showed that France had experienced a fully documented repetition of the US decline. Ours began showing up in the 1960s. The origins of our decline can be clearly traced to our having made similar intellectual mistakes half a century before. I reached that conclusion when I found that the decline of student verbal achievement in France closely mirrored the infamous fall of verbal scores in the United States in the 1960s and 1970s. In the United States, the changes wrought by our curriculum reforms of the 1930s had been local and gradual from the 1930s to the 1950s, by which time they had become all but universal. Already, by 1936, there were thousands of progressive public schools in the United States according to a March of Time newsreel of that year entitled “New Schools for Old.” It can be viewed on YouTube.

The massive American decline in test scores of the 1960s and 1970s called forth the famous federal report *A Nation at Risk* (1983). SAT verbal scores had plummeted half a standard deviation in the twenty years between 1960 and 1980. At the time of *A Nation at Risk* in the early 1980s verbal scores seemed to be in a kind of free fall, and no one could explain the reason for it—except maybe the baleful distractions of Perry Mason and other TV shows.

The causes of that SAT drop are still disputed by defenders of American schools who hold the theory that the decline was owing to increased participation in the SAT by low-income students. It’s

not necessary to review that discussion. Scholars have now shown that there was a significant score drop on virtually all US school tests—not just on the SAT—by all students, rich and poor, during the period 1965–1980. Glossing over the major role of the schools in causing the tragedy doesn't help reverse the trend. According to the National Assessment of Educational Progress (NAEP) the verbal scores of our seventeen-year-olds have stayed flat ever since 1971, the year we first began national sampling, a decade after our decline was well under way. If we insist that the nationwide progressive “reforms” of the curriculum in the 1930s and 1940s did not chiefly cause that disaster, we simply protect the faulty ideas that are the key to the whole conundrum.

Here are some score drops in the United States during the single decade 1965–1975 in terms of standard deviations. The SAT dropped by one-third in that first decade.⁹ (The decline ultimately reached one-half a standard deviation.) In that same decade, the ACT—a precollege test similar to the SAT—dropped by one-quarter. The Iowa Test of Educational Development, given to all Iowa juniors and seniors, dropped by almost one-third; the Minnesota College Aptitude Test, given to all seniors, dropped by one-quarter. The California Achievement Test (a national test) dropped by almost one-quarter. The Stanford Achievement Test dropped by one-third.¹⁰ A decline of a third or a quarter of a standard deviation is a significant magnitude for large populations. Particularly persuasive are the state tests in Iowa and Minnesota, administered to virtually all high school juniors and seniors in those states at a time when their pupil demographics were stable—thus eliminating demographic change as a cause of the declines in those states.

A lot of Americans do not care about what happens in France. Yet if there were some persistent illness in New York City whose cause and cure had been determined by researchers in Paris, we wouldn't hesitate to import that scientific knowledge to cure New York. Our schools have long been infected by a system of ideas that

prevents improvement from taking hold. The cause of the disease has now been definitively determined in Paris—and the cure as well. We should not hesitate to import that knowledge. Like a virus, providential individualism knows no national boundary or political party. As I will indicate in this chapter, the virus has also infected Britain and Sweden, and until recently Germany, which was the nineteenth-century nursery of progressive education, and has had a decisive influence on educational thought and policy in the United States.

France, with its excellent record keeping, has in effect recently completed an unintended natural experiment with ten-year-old students over a period of twenty years. The statistical and sociological analysis is on a par with our research gold standard—the National Assessment of Educational Progress. We are not so imbued with American exceptionalism as to believe that American ten-year-olds are fundamentally different from French ones with respect to math and reading proficiency. France has a diverse population as big as that of California and Texas combined. We need to take note.

FRANCE, LIKE THE UNITED STATES, USED TO BE AT THE TOP IN ACHIEVEMENT AND EQUITY

In the 1980s, France could celebrate (with Sweden) the best large school systems in Europe. The new, depressed French data, which I chart in this chapter, hit me like a body blow. I had not kept up with French schooling. The last time I had visited France was in the 1980s, at a high point in the success of the school system, which was at the top in achievement and equity. I saw it all firsthand: lively, competent preschools and effective elementary schools throughout France.

I bought a copy of the national curriculum, a modest-sized paperback of about a hundred pages of large print, with an inspiring introduction about liberty, equality, and fraternity, and about the key role of schooling in achieving those goals. The document

allocated a specific number of minutes per week for the study of topics in each discipline in each grade. The topics in history, math, science, civics, literature, and music were outlined with some specificity. Primary school was tough, but fair and predictable.

I visited bookstores on the Boulevard St. Michel that offered colorful summer-study books based on the national curriculum. They were designed for classroom use, and special ones were designed for students and concerned parents who wanted to get a leg up in the summer on the next year's demanding work. There were materials for practicing the dreaded dictée, under which students had to write down what the teacher spoke with perfect spelling and punctuation in the standard written forms of the French language. The advantages of definite grade-by-grade topics for inducing publishers to produce excellent learning materials were clear. The publishers had no control over the basic content of schooling; they gained their competitive advantage by presenting the content attractively and effectively at a good price.

France exhibited the highest average student achievement with the greatest equity of any large, diverse country. It educated immigrants better than any other European nation. is from 1991, showing the results of the system in the 1980s. The vertical axis is the average score for advantaged ninth-grade students; the horizontal, for disadvantaged ones. Note on the chart how equitable the Swedish scores are also. But note also the poor performance of Germany, still under the sway of progressive ideas. I will return to the recent experiences of those other two countries after I describe what happened to France. I had long attributed this earlier French accomplishment in overcoming inequality to the excellent French preschool system being attended by nearly 100 percent of four- and five-year-olds, and also to the fact that after preschool, children entered a highly communal primary school with a well- developed common curriculum.

Then, after 1989, things changed radically, though, as I will later explain, the intellectual preparation for the catastrophic loi Jospin

of 1989 had been brewing in French education schools since the 1960s. Because French schooling was centrally controlled, it decentralized itself in 1989 in a wrenching, centralized manner. The suddenness and universality of its curricular changes enable us now to make some confident inferences of the sort that are impossible in the United States, where specific curricular content over time is largely unspecified and unknown.

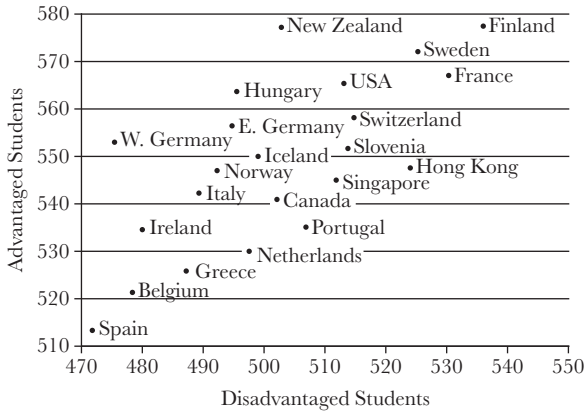


FIGURE 7.1 Literacy level for advantaged and disadvantaged students; ninth graders by country

WHAT CAUSED FRANCE TO DECIDE TO CHANGE?

I mentioned in the prologue that the common curriculum of the French primary school was a recurrent theme of French education from Condorcet in 1790 to President Giscard d'Estaing in 1977, who stated the basic idea of French schooling: to enable all French children to acquire the same knowledge in order to unify society and reduce inequality. Each child would go, d'Estaing said, to the “same” primary school and middle school. But just twelve years later, in 1989, France completely overthrew that tradition by passing a law saying in effect that each child would go to a different primary school and middle school. Instead of acquiring the same culture, each school was to respect and develop the child’s home culture and conform to the individual characteristics of each locality and to the

individual characteristics of each child. In addition, each school was to have its own special “project” and orientation.

To introduce this proposed new law, Lionel Jospin, the French Minister of Education, rose in France’s National Assembly in June of 1989 to describe his government’s plan for the total change of French education. The structure of the radical change was to be based on a new report called the Bourdieu-Gros Report. Pierre Bourdieu had been chosen to head the committee (which also included Jacques Derrida) because he had been in the forefront of scholars who complained that the old-fashioned national curriculum was not as egalitarian as it claimed to be. Rather, he said, it sustained a culture that the well-off already possessed, and thus it excluded children who came from other cultures. His report advocated a more pluralistic, multicultural approach. The new epoch-making law that was passed a month later took effect the next year and became known as the loi Jospin (“Jospin law”).

In debate, when Jospin turned to the matter of curriculum, he observed that subject matter would be determined by each district and school under its own plan. Each child would attend his or her unique school. Within the autonomous local district, the school itself was to have a measure of autonomy, with each school required to set forth its own special aims—making its plan appropriate to local values.

The ideals under which Jospin described the scheme to the National Assembly seemed inspiring: greater help for children in disadvantaged neighborhoods; insistence on more equitable academic outcomes; consideration of the individual strengths, weaknesses, and learning styles of each student; a more natural course of learning divided into cycles designed to coincide with the natural rhythms of development and growth. In 1989, the Left in the National Assembly (Socialists plus Communists) had an absolute majority; they could pass any law they wished. The vote was 280 in favor, 266 against. The conservatives were not persuaded.

Structurally, a radical feature of the new law was decentralization. Instead of having everything emanate from Paris, metropolitan France would henceforth be divided into twenty-six autonomous school districts. The Jospin law also included the institution of twenty-eight new education colleges—one in each district and two extra ones in the district of Paris to train teachers in appropriate methods for the new system. They were to codify the profession of pedagogy in a scientific and orderly way (translation: they would teach progressive theory). As outlined in the Bourdieu-Gros Report, new teachers would be trained in the new educational ideas.

When Jospin was asked in debate about the commonality of knowledge that every French child should know, he replied that the law established a national council that would produce an outline of common national standards. Now known as “the platform” (*socle*), the standards document was astonishingly short and nonspecific—nonexistent in practical terms. A telling moment in Jospin’s presentation to the legislature came when he observed (following the recommendations of the Bourdieu-Gros Report) that he had instructed the national council to avoid “mere encyclopedism” and the “piling up of facts.” The emphasis was to be on skills, not facts, based on the statement in the Bourdieu-Gros Report that all-purpose skills are far more important than the piling up of knowledge.¹⁷

The very preamble of the new 1989 law made clear that French education was not going to be “lockstep” any longer. It was going to be child centered. The law begins: “Education is the first national priority. It shall be designed and organized for the benefit of pupils and students . . . Everyone is guaranteed the right to an education, to develop his personality . . . Pupils and students will elaborate their own curricula according to their own aspirations and capacities.”

Thenceforth each primary school was to produce its own curriculum. The schools were commanded to adopt individualism by taking “into account the plurality and diversity of aptitudes of each pupil” (an instruction the French Ministry of Education still gives to

schools today, even after many years of decline). The localities were to govern the schools.

What, then, had happened in those twelve years between the pronouncement of President d'Estaing in 1977 that each child would attend the same school to the radically different pronouncements of the loi Jospin that each child would go to a different school?

There were two main intellectual impulses that led educators to accept and even demand a radical change in the school curriculum. The first impulse was felt by new teachers trained in the ideas of the 1960s. They had been instructed, during their training at the *écoles normales*, in a new point of view—that of la nouvelle éducation, which we call “progressive education.” It had at last taken root in France. It placed the individual child at the center of concern, and encouraged the teacher to accommodate teaching to the characteristics of the child. It encouraged the naturalistic teaching of math and reading. It de-emphasized memorization and grammar. This new orientation could not change the topics of instruction since these were set forth in the national curriculum. But the new attitude did change how reading, writing, and arithmetic were taught. No longer were they to be learned by artificial impositions and rote memorization. They were to be developed naturally.

The rise of this tradition among young French teachers encouraged the teacher union to support the radical changes that were proposed in the new 1989 legislation. They felt that the time for change was ripe, and was indicated by the alarming rise in the number of primary students who could not read or reckon and who therefore had to repeat a grade. This worrisome trend was blamed on the rigorous old curriculum, inappropriate for current students. This increase in grade repetition justified demands to make schooling more child-centered and up to date. It had not been understood that the rise in the number of students who were unable to read and reckon was a consequence of the new methods, not the old ones! For, starting in the 1960s, under the radar, traditional teaching methods

of reading and arithmetic began to give way to the three disastrous pedagogical theories identified in this book: naturalism, individualism, and skill-centrism. Gradually, progressive education infiltrated and then dominated teacher-training institutes in France. The new pedagogical ideas were not yet announced as government curricular policy, but they slowly took over French education schools and the ideas of the teachers who had attended them.

This silent revolution resulted in a paradox. The new naturalistic theories into which French teachers were being indoctrinated—for example, in *la méthode globale*, and *la méthode mixte* in reading—had begun to cause basic reading difficulties among the youngest pupils, even as the schools kept a common subject-matter curriculum. The rise in grade retentions, caused by the new methods, was then deployed successfully as a further argument against the old pedagogy and the old uniformity of the topics in the national curriculum. Why should today's students need to read *Le Cid*?

But there was also a second, different criticism of the old curriculum and its pedagogy that gave high intellectual respectability and urgency to the demand for radical curricular change—a demand that had continued to animate French politics ever since the alarming student revolts of May 1968. These revolts criticized almost all of France's established institutions. And, with regard to the established traditions of French education, a leading critic was Pierre Bourdieu, the coauthor of a 1964 book called *The Inheritors*. In this influential book Bourdieu and his coauthor Jean-Claude Passeron claimed that French schooling was not as egalitarian as it conceived itself to be. On the contrary, they said, it perpetuated class divisions and repressions. They said that equality of opportunity was a myth. The book made a huge impression and was much cited during the great unrest of 1968. It was an analysis of the social disparities in French universities, especially in students' choice of a university major. By a clear statistical margin these decisions about a major study area were class based. Bourdieu also analyzed the different tastes

in music and movies of university students, and found statistically significant correlations with class. He and his coauthor looked with indignation on these statistical disparities. They concluded that French republican education was a device for reproducing existing social stratifications. The French school system was unwittingly part of a conspiracy to keep the underclasses submerged. His radical claim: French schooling was a means of reproducing social class, not overcoming it.

To be an American reading *The Inheritors* is to be astonished at its superficiality, its indignant making of mountains out of molehills. The book embraces far too narrow a time slice in describing the social-class-based preferences of university students—merely a single generation. The French students whom Bourdieu analyzed in the book showed exactly the tastes one would expect. Children of peasants did not exhibit the tastes or the aims of children of executives. But what about the children of those peasant students? They will come to the university from better-off, more literate homes. Will not their knowledge and tastes be more upper class than those of their parents? To imagine just one generation ahead makes the book's astonishing indignation and its equally indignant resonance with the public seem a head-shaking example of the mood of the 1960s.

What *The Inheritors* showed unwittingly was that the French republican school of the 1950s and 1960s had been doing an excellent job of bringing children of peasants to the university, thus enabling Bourdieu to study their attitudes. Bourdieu himself had grown up under disadvantage; Standard French was not his home language. No mere social reproduction there! Why dismantle a school system that had produced a Bourdieu?

The old French centralized system with a common curriculum was not, as any on the French left imagined, a product of hide-bound right-wing politics, but of the old egalitarian left, starting with Condorcet's plan of 1790, *A Common Education for Children*,

and Napoleon's meritocratic principle of "a career open to talents." What appeared to the young and reform-minded in France during the 1960s and 1970s as being rigid and constraining in schools had in fact been instituted to help ensure that all children were offered an equal chance in life.

Then, in the 1980s, Bourdieu was asked by the Socialist government to head a committee to issue a report about what the schools should do under the forthcoming educational law that the Socialists were intent on passing—now that the left had control of the legislature. Bourdieu was thus offered a tremendous opportunity. Yet to read the Bourdieu-Gros Report, which became the basis for new 1989 law, is to be struck by its vagueness regarding the curriculum.

This defect was perhaps inevitable given Bourdieu's view that social reproduction was the chief evil of existing French education. The existing education had been following a highly specific primary-school curriculum, set forth in a thin paperback, with content and class time ordained grade by grade. Committed to changing this lockstep policy, Bourdieu's report encouraged each school to do its own thing. The new emphasis was to be on skills. It looked with disdain upon mere facts, or "encyclopedism." It stated: "The growth of knowledge renders vain the ambition of encyclopedism." The report defended the hoary progressive idea of teaching critical-thinking skills, stating: "Students are to be taught 'elementary logic,' and, by the acquisition of habits of thought, the techniques and cognitive tools which are indispensable in conducting reasoning that is rigorous and thoughtful—those same general competences are required in the reading of texts." That statement, assumed to be self-evident, is not backed up by any footnotes. Its assumptions are incorrect, as this book's discussion of "critical-thinking skills" explains. In essence the Bourdieu-Gros Report recommended American-style education, and that is what the new law went on to require. Its primary principle was that the goal of education to

develop general skills and the “personality” (i.e., the individuality) of the student.

Thus, the intellectual origins of the French “debacle” were largely the same theories as the ones that created “a nation at risk” in the United States: the theory that schooling should be natural, and that the aim of schooling should be the development of individuality and critical-thinking skills. To this view was added a further claim about social justice. Older forms of “lockstep” education were not only outmoded but also unfair. They were said to promote continued social stratification. It was argued that a further indication of injustice was the growing percentage of students who had to repeat a grade. Only years later did it become clear that the alarming rise in grade repetitions had not been caused by the old education at all, but was a result of the new naturalistic approach to reading and math. The new methods had not reduced social stratification and inequality but instead had intensified them.

FRANCE DOCUMENTS ITS DEBACLE IN DETAIL

France, with its centralized tradition and diligent record keeping, offers scholars detailed historical educational data. The French Ministry of Education takes periodic “soundings” of the public school system, recording in detail the level of student competencies, along with demographic information about the students. It is thus able to observe how educational policies affect different economic and social groups. France has thus traced its own decline in achievement and equity with remarkable precision.

The baseline data were established just before France made its sudden nationwide change. In 1987, the French Ministry had taken one of its periodic national soundings of student achievement at the end of fifth grade. Those 1987 data are the reference points for tracing the subsequent effects of the child-centered skills curriculum that began to be put in place in 1990. A second sounding, using the

same test instruments, was conducted in 1997. Then another using the same test instruments was undertaken a decade later, in 2007.

In each sounding, the student sampling represented the entire student body of ten-year-olds in the schools. The last sounding totaled over four thousand fifth graders, and the total number of responses scanned for language and math was over three hundred thousand. Details are found in Appendix II. The idea was to gauge school effectiveness up to age ten, after at least two years of preschool plus four and a half years of primary school. Students took identical tests in each decade. Buildings, teachers, classrooms, and budgets remained similar through the decades. The demographic categorizations of “head of household” stayed the same. The results are decisive, and constitute the most definitive comparative study of curriculum effects ever undertaken in any country. The numbers in figure 7.2, which concern literacy skills, are in standard deviations. (The math results are even worse.)

The child-centered skills curriculum had caused the average of literacy scores to fall four-tenths of a standard deviation. Because children with better-educated parents acquire academic knowledge both at home and at school, the decline was less steep among more-advantaged students. Among the neediest students, the decline was severe. This differential effect is important. It suggests the positive equity effects of a common grade-by-grade curriculum in the elementary school when the lines are traced backward in time—what had been lost and what could be regained.

That French chart follows precisely what theory predicts about educational inequality. If students gain the knowledge and vocabulary of the public sphere, they will score well on a literacy test. If accidents of birth have excluded that knowledge from the home environment, and if the school does not supply it, then they will score badly on a literacy test.

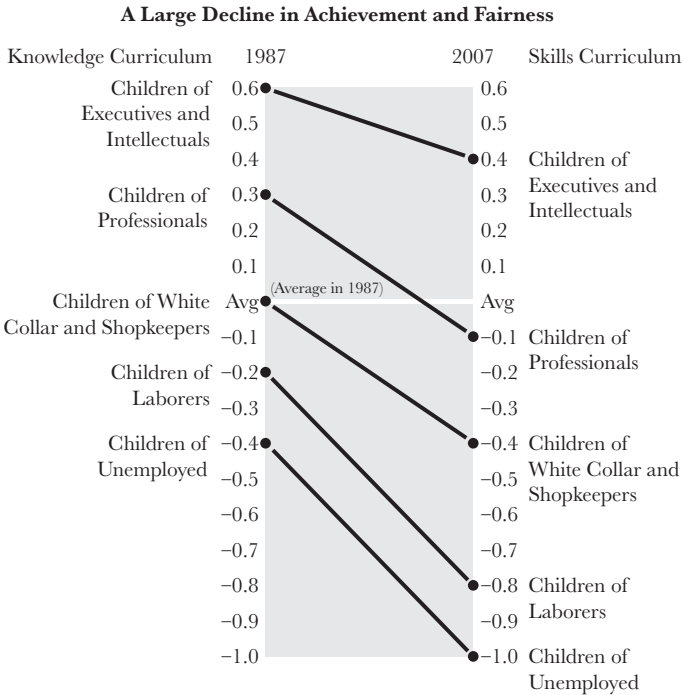


FIGURE 7.2 Curriculum effects in France 1987–2007 at the end of fifth grade

Note: Vertical scale = z scores for 1987; average in 1987 = 0; average in 2007 = minus .37. Z scores are percentages of the standard deviation of a distribution. They allow results to be compared in different eras, even when the underlying tests use different scales.

The hope had been held out that new, individualistic modes of schooling would create a new, more nearly classless society.²⁷ The Bourdieu-Gros Report demanded a total overhaul of the system to make it more egalitarian, and demanded nothing less than a revolution of the system. With the left fully in power in the late 1980s, they got their revolution. The new localizing and individualizing of the schools had been proposed as a way of overcoming the reproduction of social stratification. But the educational results went the opposite way, intensifying inequalities. As the French data from 1987 to 2007 show, the new 1990 arrangements greatly intensified the

social reproduction they were supposed to diminish. They systematically deprived poor children of the enabling knowledge that rich children had acquired from their home environments.

The French twenty-year study of curricular effects should carry the day with most people. From a scientific standpoint, the data from France are more significant for American education than any data we have ever managed to collect from our own system. The French experiment, combined with the congruence of its results with cognitive science and international comparisons, has pretty well proved that a specific, cumulative common-core curriculum, such as France had before the Jospin law, is far superior to the American-style individualized curriculum that followed it in France. Logic and common sense agree with the data. And in light of the current scapegoating of teachers in the United States, I would stress that entry standards for teachers into the French school system remained extremely high both before and after Jospin. “Teacher quality” remained constant in France by all objective measures during the period of decline.

These findings are important for us because we lack large-scale, curriculum-related data in the United States. We don’t know with precision what was being taught in our variegated local communities as our schools gradually moved toward the progressive takeover in the twentieth century. The French know precisely what used to be taught, and how it differs from the incoherent curriculums being taught now. And they know in demographic detail what the consequences were. These data make it nearly certain that any district in the United States that implemented a communal, cumulative curriculum in all subjects (not just language arts and math) will show higher achievement and much higher equity than it has shown in the past under the reign of the skills delusion.

My late friend Roger Shattuck wrote a book entitled *The Forbidden Experiment* about the Wild Boy of Aveyron who grew up in the French woods without parents. The French have now conducted a bigger natural experiment, replacing commonality of

knowledge with individualized curricula and an emphasis on skills. The results are quite clear. If these trials had occurred in medical research, with epidemiological data from several thousand randomly assigned experimental subjects, they would quickly be halted. It would be considered unethical to continue them.

THE FRENCH PUBLIC BECOMES ALARMED AT “THE CRISIS OF THE SCHOOL”

In 2003, a young French schoolteacher named Rachel Boutonnet published a tell-all book that informed the public about the practices that had become prevalent in French teacher-training institutes and, subsequently, in the primary schools where their graduates taught. She was attending one of the new education schools in order to get her license but was so outraged by the boredom, misinformation, and ideological conformity thrust upon her that she resolved to keep a journal.

When her *Journal of a Clandestine Teacher* was published, the French public became more aware of the ideas and methods that were current in teacher training and in their primary schools. Education colleges required a teacher to be called a “resource person,” a guide on the side. A class lesson was to be considered a “session,” not a lecture. Students were to be called “learners.” Above all, those learners “were to be motivated to construct their own learnings.” They were not to be “fed mere information.” The chief aim was the imparting of all-purpose skills like “learning to learn.”

In the earliest grades, where decoding of the written word is paramount, Rachel Boutonnet was told that students must cease to be taught by phonics. They should learn to read by the naturalistic “whole-language” approach, or (since that is so controversial) by the quasi-whole-language *méthode mixte* known in English as “balanced literacy,” which occasionally mixes in some phonics instruction.³³ Though confidently asserted, these edicts made no sense to Boutonnet. After graduation, she secretly taught her

students to read via the phonics method, and they performed above the norm. When she came to be evaluated by the inspector, she felt confident. But, no, she received an unfavorable report. She had not followed methods of “whole language” or “balanced literacy” in reading, nor had she used “constructivist” methods emphasizing learning-to-learn skills in her instruction. American educators and policy makers will immediately recognize the French version of ideas that prevail in our own colleges of education.

In 2004, one year after Boutonnet’s book, another schoolteacher, Marc Le Bris, came out with a bestselling book called *Your Children Won’t Know How to Read or Count*. It carried the subtitle *The Persistent Failure of the French School*. Le Bris is older than Boutonnet. From his book’s opening pages he made clear that the methods and attitudes Boutonnet described were already dominant in education schools more than twenty years before. He began his book as follows:

For twenty years, the National Education system has prevented me from doing my job. When I left the normal school in 1977, I was a young progressive teacher, convinced of the superiority of the reading method called “natural.” I believed everything. I did everything demanded: small groups, enrichment activities, functional grammar, natural reading of modern mathematics, animation, self-learning, multidisciplinary decompartmentalization, creativity, self-directed studies.

Yet students of older teachers, who dared to continue to use dictations and learn reading by phonics, fared better. My students, pampered by modern methods, have suffered educational disadvantages of which I am ashamed today. Shame? Not really . . . because, like many of us, I have corrected this. I write this book to alarm parents. They will save their children only if they do the work of the school at home. Modern education only serves to justify the abandonment of ambitions that we have for our children. We have before us a real cultural catastrophe.

The chief source of the crisis was identified eloquently by an

association of French teachers and researchers called Groupe de Recherches Interdisciplinaires sur les Programmes (“Group for Interdisciplinary Studies of the Curriculum”), or GRIP:

We situate the main origin of the school crisis in the disintegration of the curriculum—principally the primary school curriculum. Begun decades ago, worsened by reform after reform, with some course correction recently, this curricular disintegration has rendered more or less random the subject matters taught. It has thus compromised the possibility for the majority of students to gain the wider knowledge that is necessary to academic success. In consequence, we see the reconstruction of the primary curriculum into one that is rich, coherent, and cumulative as the necessary condition for a true democratization of education.

This perceptive analysis by the teachers themselves has not been seriously heeded in France. There has been no successful movement to specify once again the content of the primary curriculum across the nation. Yet the French public is deeply concerned about the decline of the schools and students’ poor results on the international PISA rankings—the most recent of which, in 2012, showed that France, of all countries in the world, has deteriorated the most in the equity of its schools. In response, French headlines announced “We Are the Champions of Academic Inequality.” It was a stunning reversal after being at the top in the equity of its results!

Today there continue to be debates, books, and articles on the *crise de l’école*. New adjustments to the loi Jospin have been enacted, which change structural elements at the edges, but do not rationalize the elementary curriculum. A new law in 2005 reconstituted the idea that there should be a more significant base, or socle, that all children should learn, but the resulting document did not get into specifics, and has been essentially useless. Starting in 2016, the socle will have more force, since a student cannot get a brevet—a certificate of graduation—without a paper saying that he or she has met the still-vague standards of the socle. There is no direct movement

to return to a specific national curriculum in the primary school. That seems now as unthinkable in France as it would be in the United States.

Or is it? The young in France may still throw off the old ideas, even when the old ideas—including the outworn and failed ideas of Bourdieu—are still presenting themselves as new. In 2014, a brilliant high school teacher still in his twenties published a well-received, probing, and beautifully written little book tracing and deconstructing the underlying ideas of present-day French education. With a play on Bourdieu's *The Inheritors*, he entitled it *The Disinherited: or the Urgency of Transmission*. The young teacher's name is Francois-Xavier Bellamy. If France is lucky, other young people will agree with him, and will in time begin to undo the immense damage wrought by the ideas behind the *loi Jospin* and the training of teachers like Rachel Boutonnet (that other young rebel). Toward the end of his book, Bellamy writes:

Fifty years after *The Inheritors*, our educational system, greatly influenced by that book's condemnation of transmission, has become the most inegalitarian in Europe. Pierre Bourdieu, son of an agricultural worker in a little village of Béarn: would he today have the slightest chance of entering the *école normale supérieure*? Without any doubt, no. The only survivors of the shipwreck of our public education are those whose parents know the tactics for escaping the disaster—which quarters to live in, which subjects to emphasize, which options to choose. On the other end of the spectrum are the designated victims of social selection—among them, the children of immigrant families. It is with them in mind that we renounced teaching the culture of our country and transmitting to all a common heritage. Today, those young people have twice the average risk of serious academic failure. Who can fail

to see that that is the true violence; that such denial of transmission cannot fail, one day, to explode?

SWEDEN DECENTRALIZES AND INDIVIDUALIZES

Bourdieu and the political left cannot boast sole ownership of decentralization, individualism, and the skills delusion. Sweden now offers a similarly compelling example from the right. It decided in 1994 to make the same sort of educational changes as France. Behind this move lay the same kind of thinking about following the providential impulses of the individual child, to which Sweden added the further idea of following the providential workings of the free market.

In 2014, after a decade of the experiment, the Swedish government commissioned a report from Professor Leif Lewin regarding the effects of its decentralization of Swedish schools, and its offering of government financial support to any school, public or private. The central right government that had favored decentralization has now been made highly uncomfortable by Lewin's 2014 analysis. He showed that decentralization had caused a severe drop in students' abilities in reading, writing, and arithmetic. It had greatly widened the achievement gaps between rich and poor students. Decentralization of the curriculum had done in Sweden exactly what it had done in France.

Before the changes occurred, Lewin showed, Swedish schools exhibited only minor gaps between rich and poor students, and Sweden boasted one of the most egalitarian systems in the world. Before 1994 there was little difference in overall school performance, no matter where the school was located. Now there had developed wide differences in school performance, and wide gaps had opened between the performances of rich and poor students. The overall performance of Swedish students in the PISA studies had declined significantly. Decentralization, Professor Lewin concluded, had not worked. Of particular interest for readers of this book is the following passage from the Lewin Report that describes how the content

of the curriculum had been individualized:

The adaptation of the 1994 curricula to the new school governance meant that the previously detailed time allocations and topics were replaced by vague time allocations that required only a minimum guaranteed teaching time. Under the new curricula, the state largely abandoned the ambition to determine the knowledge content of the school, and transferred that determination to local schools.

Previously, efforts to create curricula and syllabi had been regarded as a technical matter for administrators and subject-matter experts. Actual classroom content had been driven by time allocations plus the teaching-materials package, which translated the core syllabus into specific teaching content. In contrast, the basic idea of 1994 law was that henceforth teachers and principals are considered to be in the best position to design the curriculum, because they best know the local conditions.

The Swedish PISA scores alluded to in Lewin's report are striking. Between 2000 and 2012, Swedish PISA verbal scores fell from 516, which was 12 points above the United States, to 483, which is 15 points below the United States and 17 points below the average of developed nations. It is the largest drop ever recorded by PISA. The magnitude of the Swedish decline makes the change from a common-core curriculum throughout Sweden to an individualistic approach almost as significant for American policy as the French decline, except that precise demographic data are lacking in Sweden.

As figure 7.1 showed, Sweden in 1990 was just behind France as the top large nation in Europe for excellence and equity. And then after 1994 Sweden decided to abandon common subject matter in favor of personalized education and market competition. Programs suited to each individual were to be instituted, along with free choice of schools, paid for by the government whether public or private.

Before 1994, high equity and achievement in Sweden had been

no accident. It had been a chief aim of national policy. Educational equality became a national priority in the 1960s, when compulsory education from ages seven through sixteen was introduced. Every Swedish child was required to attend the neighborhood elementary school, and to study the same subjects in the same classrooms under a common national curriculum, as in France. According to Professor Tomas Englund of Örebro University, Sweden followed what he calls “equality-oriented centralism,” with extra resources allocated to low achieving students. Under the Swedish system, as it evolved, “the differences in achievement between different schools were rather small.”

The new law of 1994 discarded those arrangements. A principle of “equivalence” was legislated to replace the common curriculum, summarized as follows by the Swedish Ministry of Education: “Education should be adapted to each pupil’s circumstances and needs, based on the pupils’ background, earlier experiences, language, and knowledge. The Education Act stipulates that the education provided within each type of school should be of equivalent value, irrespective of where in the country it is provided (Chapter 1, §2). However, equivalent education does not mean that the education should be the same everywhere. Account should also be taken of the varying circumstances and needs of pupils as well as the fact that there are a variety of ways of attaining these goals.”

If equivalence doesn’t require everyone to learn similar content, as before in Sweden, then what would be the yardstick for it? It is the answer given by progressive education since 1910. All pupils will be taught different, individually adapted topics—but all will be taught the same thinking skills: “Students should train themselves to think critically, to examine the facts and circumstances and to realize the consequences of different options. Pupils shall develop their ability to take initiative and responsibility and to work and solve problems both independently and with others. The school should develop students’ communication and social skills. In this way, students

acquire increasingly scientific ways of thinking and working.”⁴⁴ In the primary grades, the coherence of the common curriculum disappeared. With the new emphasis on individuality and thinking skills, the elementary curriculum in Sweden became as incoherent as the curriculum had become in France and the United States.

Why did France and Sweden, which stood at the top in equity and achievement, suddenly destroy two of the most admirable and effective large school systems in the world? It was because they intended to make their good systems even better. They were unlucky enough to believe the well-meant but misguided slogans about individualization and skills. Their past successes had given them an unwarranted confidence that they could get even better results by attending more closely to individual needs. Both nations had become so accustomed to effective schools that they took success in that effort for granted. Now in the PISA studies Sweden is second only to France as the country that has deteriorated the most in social equality.

In table 7.1 I list Sweden’s PISA scores from 2000 to 2012, and compare them with the more favorable pattern of PISA scores in Germany in table 7.2. Germany is an object lesson in the other direction. It has greatly improved its PISA standings in both achievement and equity. In 2000, PISA had reported quite bad scores for Germany—below the United States and below the average of developed nations. That created a scandal and a national stock taking known as *der PISA Schock*. Reacting to the *Schock*, Germany began to adopt well-defined curricula. After that it began to score above average for developed nations. Germany, with notable astuteness, had discovered the cure on its own. When Manfred Prenzel, the head of PISA studies in Germany, was asked to explain what caused German students to become so much better in reading, math, and science than they were a decade ago, he had a simple answer: the post-*Schock* curriculum guides put out by the *Länder* (equivalent to the states in the United States) are now much more aligned with

each other, and are more specific grade by grade. “The teachers,” he said, “know specifically what to teach, and the students know what they have to learn.”

<i>Year</i>	<i>Reading</i>	<i>Math</i>	<i>Science</i>
2000	516	510	512
2003	514	509	506
2006	507	502	503
2009	497	494	495
2012	483	478	485

TABLE 7.1 Sweden PISA scores

<i>Year</i>	<i>Reading</i>	<i>Math</i>	<i>Science</i>
2000	484	490	487
2003	513	503	502
2006	495	504	516
2009	497	513	520
2012	508	514	524

TABLE 7.2 German PISA scores

AVOIDING IDEOLOGICAL OVERSIMPLIFICATIONS

Sweden offers dramatic proof that left-versus-right ideological simplifications regarding the declines there and in France are not warranted. In Sweden, the disastrous movement toward individualism and skills that destroyed its education came from the political right, not the left as in France. The theory offered in Sweden was that individual schools and students, left on their own without state interference, would yield better results than state-imposed commonality. As the Swedish government put it: “Education should be adapted to each pupil’s circumstances and needs, based on the pupils’ background, earlier experiences, language, and knowledge.” That statement from the right was exactly the position and almost the wording of the socialist left in France, which stated: “The school

shall take into account the plurality and diversity of aptitudes of each pupil.”

Nor has Great Britain been exempt from premature left-right polarization of the early curriculum. In 1967, before the Bourdieu-Gros Report of 1989, Britain had issued the Plowden Report under the auspices of a left-leaning Labor government. Progressive education, long an undercurrent in teacher training in the United Kingdom, now began to be institutionalized as official left-wing doctrine. The Plowden Report encouraged schools to “develop a more informal, child-centered style of education with an emphasis on individualization and learning by discovery”: in short, a “progressive” style of education, which Plowden largely endorsed. But the trend was not without its critics, and the battle over different styles of primary education would continue for many years, with traditionalists blaming Plowden for what they saw as the failings of primary education.” Stipulations of the Plowden Report were very Jospin-like: the involvement of parents, children finding things out for themselves, and above all, a focus on the individual. “Individual differences between children of the same age are so great that any class, however homogeneous it seems, must always be treated as a body of children needing individual and different attention,” said the report. Poet W. H. Auden, protesting, stuck his poetical oar in: “Dare any call Permissiveness / An educational success?”

Lacking detailed data in Britain, it’s impossible to state with confidence the connection of individualized education with the disturbing widening of gaps in Britain. The Bennett Report of 1976 argued that the data showed that the new methods were exacerbating inequalities without leading to any improvement in “creativity.” This led the *Times* of April 26, 1976, to issue a lead editorial entitled “Progress Is Not Progressive.”

Today the conservative government in Britain supports a communal curriculum, while Labor, following the lead of the teacher unions, argues for individuality and “personalization.”

But teacher unions are not inherently of that view. Their membership has simply been indoctrinated by their teacher-training institutions, which are theological institutes for progressivism. In the United States, the independent-minded American Federation of Teachers has long supported the highly specific Core Knowledge Curriculum because of its socially enabling power, and its effectiveness in narrowing achievement gaps between groups.

Ever since Condorcet and Jefferson, the left has favored universalism—that is, the idea of offering each child the very same educational opportunities in the early years. That was the position of the left in Sweden and France after World War II, and it met with great success. But then the French left reversed itself in 1989. Current political polarization of this issue reflects now chiefly a spirit of party rather than of hard thought about achieving higher equity and a better-educated citizenry.

Educational individualism and the skills delusion have no inherent connection with either the left or right. That was an insight that the great liberal George Counts announced memorably to the American Progressive Education Association as early as 1932: “Progressive Education . . . has focused attention squarely upon the child; it has recognized the fundamental importance of the interest of the learner; it has defended the thesis that activity lies at the root of all true education . . . it has championed the rights of the child as a free personality. All of this is excellent; but in my judgment it is not enough. The great weakness of Progressive Education lies in the fact that it has elaborated no theory of social welfare, unless it be that of anarchy or extreme individualism.”

This critique was also that of the great leftist thinker Antonio Gramsci. With his unerring penetration, he understood that poor children needed to master the intellectual tools of power rather than implausibly trying to invent their own.⁵² When I have invoked Gramsci as supporting the principle of a universal common curriculum in early grades, it has induced a heated reaction from progressive

educators on the left who greatly admire Gramsci, but deny that he ever said or meant anything that contravenes child-centered education and the anti-transmission point of view. In the end, it doesn't matter what Gramsci said about this, since cognitive science clearly indicates that broad, commonly shared knowledge is essential for effective language use. But one can hope that the honored name of Gramsci should encourage the best minds on the left to think again about their support of the inequality-producing child-centered curriculum.

When I questioned the Gramsci scholar Joseph Buttigieg about Gramsci's support of a common curriculum for all young children, he wrote back as follows, giving me permission to quote him:

The phrase “la scuola unitaria o di formazione umanistica . . . o di cultura generale” [the unitary school or the school of humanistic formation or the school of general culture] is interesting because it explains that the “common school” Gramsci was thinking of was “a school of humanistic formation.” The context makes it clear that for Gramsci the “common school” is necessary for “reasons of equal opportunity,” as you put it, and to remedy the tendency of modernity and modernization to channel pupils/students into special(ized) schools meant to prepare them for technical, industrial, etc. jobs.

Gramsci envisaged an educational system in which everyone would go through the “common school” before moving on to specialized schools. I've always considered Gramsci's positions on education to be informed by a profoundly democratic spirit. His views, in my opinion, are pedagogically sound. I wish more people currently involved in educational policy adopted perspectives similar to Gramsci's.

The “common school” is, of course, the very phrase and concept that helped build American democracy. Knowing what we now know about the knowledge conventions of language, both the left

and the right will need to get together and cooperate in repudiating misplaced providential ideas that leave the content of early education to benign forces in the nature of the child—or of the market. The early curriculum requires hard, specific thought, and commonality in grades preK–5. The depoliticizing of primary education could be the most important practical theme of this book.

To fulfill the promise of eager children from ages four to eleven, everyone should forget party. Both the left and the right have been misled by the theory of providential individualism in education.⁵³ Individualism in the early grades disables many individuals. It is an error committed by both the left and the right. The task of correcting it transcends party. Individualism with its curricular incoherence has been a chief cause of stasis or worse in the effort to narrow the achievement gaps between racial, ethnic, and economic groups in the United States, Britain, France, and Sweden. Providential individualism is an outmoded residue, a sedimentary deposit from intellectual history. It is not a logical nor a necessary element in the aims of either left or right. If equality of opportunity remains a primary aim, both parties will need to disavow the impossible dream of an effective individualized curriculum in the early grades.

APPENDIX II

From: *Journal of Basic Writing*, Volume 3, Fall/Winter, 1980

CULTURE AND LITERACY

E. D. Hirsch, Jr.

When I was so richly honored by receiving an invitation to speak at this conference, I searched for a subject that might do justice to my deep admiration for Mina Shaughnessy. It should be a subject, I thought, that has an Arnoldian ring to it, which is why I chose the title “Culture and Literacy” with its allusion to Arnold’s great book *Culture and Anarchy*. For, as Mina lives in my memory of her, she is an Arnoldian figure—a poet, essayist, critic, even an inspector of schools, and at the same time a person who integrated all these roles not just in service of a powerful cultural mission, but also in exemplification of literate culture at its best: social purpose, integrity, eloquence, and something very Arnoldian—a sense of style. But Mina also had a powerful streak of common sense and she would certainly have advised me against trying to adopt in this talk the inauthentic posture of an Arnoldian sage. “Stick to your last,” she would have said, and in fact she did say something like that to me the last time we met. I was then in New York City trying to break into the convention world of composition experts

who were meeting at a conference, and I was not making much progress in this political maneuver. I took the day off to go visit Mina.

When she heard what I was up to she said something like this or possibly, *exactly* like this, since her words are graven in my memory: “You are wasting your time, Donald,” she said. “It’s not your style. Go back to Virginia and get your grants, do your research, and write your books.” The moment she said it, I knew she was absolutely right, and what I am going to talk about on this occasion will be, at least in part, a consequence of following Mina’s advice. I will focus on her main interest, the teaching of writing, and I will bring to bear some of our recent research at Virginia. These subjects will also lead out naturally to some of the larger social and cultural issues that deeply concerned Mina Shaughnessy.

The act of writing and the teaching of writing are so complex and elusive that we sometimes neglect their most important dimensions just because those aspects *are* so obvious and elementary that we take them for granted. Shocked recognition of this has fostered, for instance, the back-to-basics movement with its renewed emphasis on spelling, motor skills, traditional practice in usage, and so on. The main subject of my talk today concerns another basic aspect of writing, one so fundamental and obvious, that it too has suffered neglect. I mean the cultural aspect of writing. It is a dimension that I myself have neglected in my own work, and one that we writing teachers have often ignored in teaching, because the sheer craft of writing makes so many immediate demands upon our students. That is why virtually all that is written about composition devotes itself to the craft of writing—to coherence, to pre-writing, organization, syntax, sentence variety, and the like. Certainly for those who, like Mina, teach basic writers (and so many of our students everywhere these days are basic writers), the *craft* of writing must be at the center of our concern.

But in the past few months, and in the light of our recent large-scale experiments at Virginia, sponsored by the National Endowment for the Humanities, I have begun to realize that the *craft* of writing is only half the story. This realization has come to me with a shock of revelation, and so I hope you will be tolerant if, still reeling from my newest conversion, I speak with some of the one-sidedness that new converts are all too apt to exhibit. Such one-sidedness may be just what is needed at the moment, since the craft approach to writing is so powerfully in the ascendant: specialists in the craft of composition are in great demand for teaching posts. Money for composition research is easy to come by. And even now, as I write, Yale University is pondering ways of spending a grant of 1.25 million dollars to improve the writing abilities of Yale undergraduates. Special research grants, special job descriptions, and lots of money are being thrown at the problem. And all of this effort is certainly going to improve instruction in the craft of writing, if only because we are again paying attention to the problem instead of neglecting it. But I should like to suggest in this talk why this laudable effort can only be partly successful so long as it is narrowly oriented to writing as a craft which can be even more efficiently taught, as research uncovers ever more efficient ways of teaching it.

I said that the craft-approach neglects the cultural dimension of writing. Alternatively, one could say that we have stressed the process and product of writing at the expense of the huge domain of tacit knowledge which is never written down at all, but which, though quite invisible, is just as operative as the visible written word. A writing task could be compared to an iceberg whose visible tip is arrangement, syntax, rhetoric, spelling, coherence and so on, but whose much bigger invisible base is tacit cultural knowledge—not just linguistic knowledge, and knowledge about the topic, but also, and most important, knowledge of what others also know and expect about the topic, about the form, about the writer, and about the world. In short, the cultural dimension is that whole

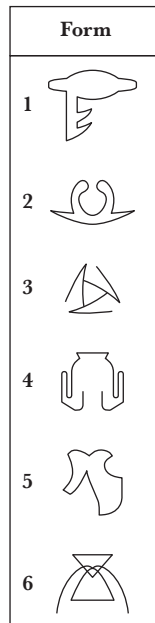
system of unspoken, tacit knowledge that is shared between writer and reader.

It is hard to overestimate the importance of this tacit dimension in the teaching of literacy, though we have paid scant attention to it. Only very recently have psycholinguists begun to deal with this invisible and inaudible dimension of speech. In 1972 there were published some experimental results which clinched the point I am making—even if on a very primitive level—yet making it all the more persuasively, since the experimental tests were so obvious and elemental. The tests concerned whether we perceive and remember what a sentence says as a linguistic trace, or whether we perceive and remember, instead, what the linguistic traces invisibly entail. One of the experiments used the following two sentences:

1. Three turtles rested on a floating log, and a fish swam beneath them.
2. Three turtles rested on a floating log, and a fish swam beneath it.

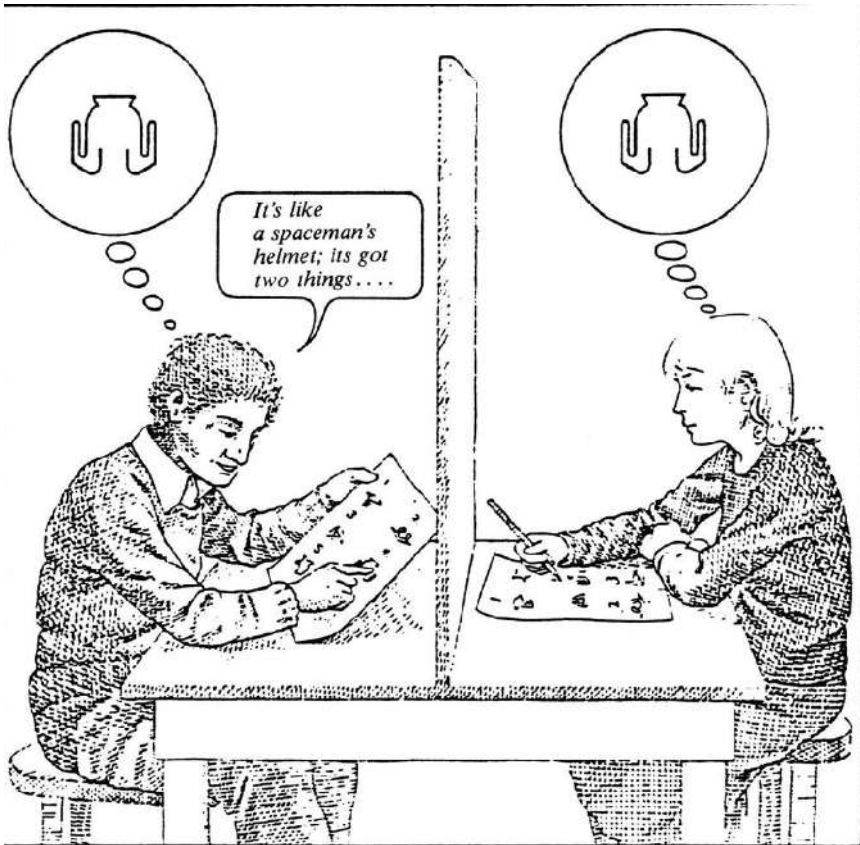
Half of the subjects were given sentence 1, and half sentence 2, along with appropriate control sentences. But in recognition tests the subjects simply identified whichever sentence they were shown. Psychologically the two sentences were absolutely identical. For the subjects, the inference that the fish were underneath both the turtles and the log was actually *stated* by the sentence and was remembered as being explicitly, linguistically stated even though it was not. While I cannot imagine anyone being surprised by this result, this and many similar experiments finally put to rest the theory that the perception and memory of sentences is merely a perception and memory of linguistic traces. Readers also understand and remember an invisible, culturally shared component which many linguistic model builders now put into a box labeled “knowledge of the world.”

This extra-linguistic dimension was approached from another angle in some experiments reported by Kraus and Glucksberg. I've chosen these particular ones because they are relevant to the special demands of writing, and also because they were accompanied by some convenient illustrations from *Scientific American*. In the experiment a physical barrier is placed between two subjects so that they cannot see each other. Communication has to take place, as in writing, through words alone. And, again as in writing, only one person is allowed to speak, while the other has to interpret what is spoken. The communicative task was to explain to the other subject how to order a series of unfamiliar shapes. This is what the shapes looked like:



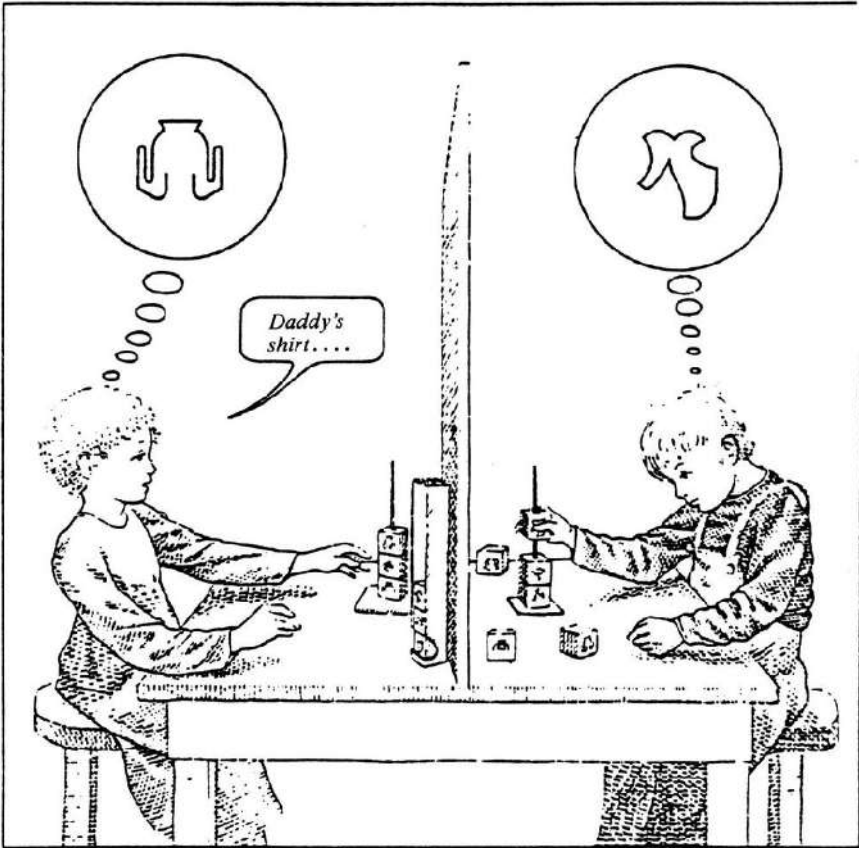
Now when this task was performed by two literate adults, it turned out to be extremely easy. In fact, among the subjects used by Kraus and Glucksberg, the adults always managed to score 100 per cent on their first try. And one noteworthy feature of this adult performance was that, compared with children, adults tended

to be very prolix in their descriptions, as though they realized that the shapes would be unfamiliar to the other person, and would therefore have to be carefully related to other shared and familiar shapes. Here is a picture of the adults at their task:



In the illustration there is not enough room to give a full example of the number of words used for each adult description.

Here by contrast is an illustration of a typical performance by children. When the children were of nursery school age, that is, about age four, they could not complete a single error-free trial no matter how often they tried.



Kindergartners, age five, performed no better than nursery school children. First graders through fifth graders, that is, ages six through nine or ten, could not complete an error-free trial at first, though they did improve with practice. Seventh graders, age twelve, did only about as well as fifth graders. And ninth and tenth graders, age thirteen to fifteen, took seven to nine trials before they began to get perfect results.

Developmental psychologists will have their own explanations of the performances of the very young children. What fascinates me is the mediocre performance of the fifteen-year-olds. The American fifteen-year-old subjects chosen by Kraus and Glucksberg were the products of eight or nine years in our school systems. They were *not* trapped in egocentricity, but they *were* deficient in a task which

closely approximates the writing task. And what they clearly lacked was not vocabulary, or grammar, or syntax. What they lacked was a sense of the other person's range of knowledge and expectations. They lacked, that is, a good sense of what the other person knew. This, you remember, is how I defined the invisible cultural dimension of writing—a knowledge of the reader's knowledge—a range of knowledge tacitly shared. I believe that there is no developmental reason why a 15-year-old should be culturally illiterate to this degree. Indeed, one of the defects in these elegant experiments was the apparent cultural homogeneity of the subject populations. No mention was made of pairing a semi-literate White, Northern adult with a semi-literate Black, Southern adult. No tests were run, apparently, with pairs of highly literate fifteen year-olds, who were at once practiced readers and proficient writers. Such fifteen-year-olds do exist, and such adults do exist in our culture. And I will wager that the results in such cases would be precisely reversed. My point is, of course, that good education is the specific antidote to cultural illiteracy, and that improvements in literate education would affect performance in this kind of experimental task, which is so analogous to a writing task.

I feel fairly safe with my wager. Kraus and Glucksberg, you remember, found that adults tended to be more prolix than children in performing this task, and this fact is highly reminiscent of Bernstein's sociolinguistic distinction between elaborated and restricted codes—which is a technical version of the distinction between prolixity and conciseness. Culturally literate adults know how to talk to strangers. Knowing what the stranger probably does and does not know, they sense when they must be prolix and when they can be brief. In the experimental task above, prolixity *was* required, but in another task, it might not have been. That is why cultural literacy (knowledge of what others know) is so essential to competence in the domain of writing.

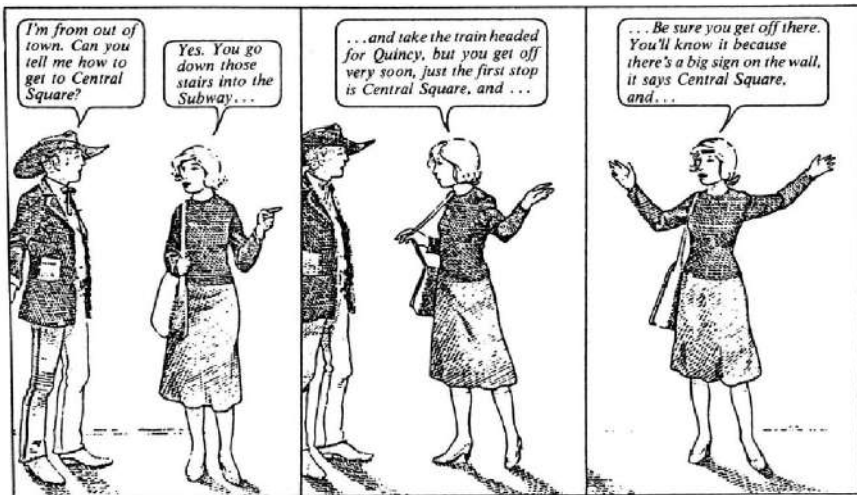
I'll give just one more experimental illustration of this principle before turning to our experiments at Virginia. In this experiment, undertaken by a clever Harvard undergraduate, the researcher goes out on the streets of Cambridge, Massachusetts, with a hidden tape recorder, and approaches passersby with the following question: "How d'ya get to Central Square?" He is dressed like a native. He is carrying a copy of the *Boston Globe*, and he affects a strong Boston accent. Invariably, he gets a very brief reply to his question:



As you see, the typical adult respondent answers his question without breaking stride, using just five words which in some

quarters would not pass as a complete sentence. For this answer to be adequate, consider just some of the knowledge which the dozens of passersby had to assume that the questioner also knew: where the subway is, which direction you go on the subway to get to Central Square, and also the convention that Bostonians do not use elaborate forms of courtesy when addressing unknown fellow Bostonians—and this is to mention just the most obvious assumptions about the knowledge the other person is assumed to have.

Now in the next phase of the experiment, the undergraduate goes back to the streets of Cambridge in a different get-up and prefaces his question with the statement “I’m from out of town.” After a time he discovered he could get the same results if he just signaled his out-of-townness by adopting a rural Missouri accent which is exotic enough in Cambridge to indicate “I’m from out of town.” In this second phase of the experiment, also repeated dozens of times, this was the typical sort of result:



You will notice that this response to a stranger is similar in its prolixity to the elaborated code used by adults to describe the strange shapes in the previous experiment. In both cases adults tended to use the elaborated codes typical of writing whenever

they found themselves talking to strangers, or talking about strange things. For in writing we are rarely on truly intimate terms with our readers. On the other hand, our readers could not be radical strangers-Martians-if we expected to communicate at all. So, the strangeness-quotient in speech, whether of topics or persons, is a purely relative, or rather a purely cultural matter. And our prolixity or brevity will depend upon our degree of shared cultural knowledge. In fact we could state this principle as a universal law for all writers: The amount of information that must be made explicit in a piece of writing is inversely proportional to the amount of information that is already shared between writer and reader.

Before I turn to our Virginia experiments I want to expatiate on this point for a moment, since it bears upon the results of those experiments. A basic writer's lack of familiarity with the knowledge and expectations of his readers is to some degree a problem that faces all writers. None of us can know for sure what sort of people our readers will be, but we know how to make informed guesses, and in particular how to imagine an appropriate common reader for what we write. I say "appropriate" because most writing aims at a particular group of readers, and assumes in them a particular range of common knowledge. For instance if I were writing an article for the *Astrophysical Journal* I would posit a common reader for that journal.

The term "common reader" goes back to the 18th century, to Dr. Johnson. "I rejoice to concur with the common reader," he remarked in his *Life of Gray*, "for by the common sense of readers must he generally decide all claim to poetical honors." And undoubtedly in Johnson's own day there did exist a commonality of literate people who shared much the same grammar school education, who had read many of the same ancient and modern authors, who continued to read many of the same periodicals, including Dr. Johnson's, and who could be counted on to have a certain range of shared knowledge and attitudes. This was the kind of shared culture that defined

the common reader in Johnson's day. With much greater variation, it also defines the common reader in our own. The shared culture of the common reader is what one *means* by cultural literacy.

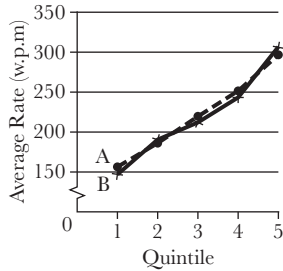
Now the idea of the common reader was one of the principles that governed the composition research we undertook a year ago at the University of Virginia. Our original purpose was to find out how much difference good writing versus bad actually made to the common reader of our own day. We reasoned that if some consistent difference could be measured between the effectiveness of a well-written text and a poorly written one that conveyed the same meanings, then perhaps some aspects of paper-grading could be related to the real world, with attendant benefits to students, teachers, and researchers. We also assumed that if we gathered about two hundred literate adults together in a room, we might get a statistical approximation of the common reader of our own culture and might therefore get highly duplicatable results.

In a typical presentation we gathered about two hundred people in a lecture room, in the front of which was a big digital clock that kept time in seconds. From this clock, the readers could set down the starting and finishing times of each task they performed. Then we distributed booklets, half of which contained an essay written by an inexpert freshman, while the other half contained an expert rewrite of the same essay. Also included in both booklets were questionnaires about the content of the essays. And, of course, in all cases, we also included identical essays in both booklets as controls.

Our early results were highly promising, because we quickly demonstrated that a rewrite by an expert did indeed communicate more effectively than the original freshman piece, even when the length, meaning, and tone of the rewrite stayed as close as possible to the original. This was apparently the first time anyone had measured the global difference that good writing makes. Just how much difference is shown in the next figure:

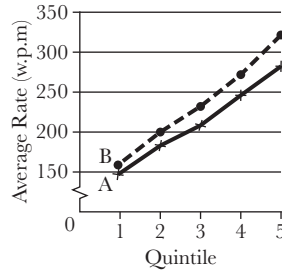
**Quintile Graph:
Control Essay**

Reading rates of group A compared with rates of group B when reading the same control essay.



**Quintile Graph:
“Time vs. Newsweek”**

Reading rates of group A compared with rates of group B when reading student paper (A) and stylistically improved version (B).



These two graphs placed side by side are called quintile graphs because the computer has divided readers of each booklet into five groups, according to their reading rates, with the lowest fifth labeled I along the base of the graph, the next fastest fifth labeled 2, and so on. The vertical line marks off reading rates. The *average* reading rate for each of these groups was then plotted above its quintile number and marked as a point or as an X to distinguish the groups. Then we drew a solid line between the X's and a dotted line between the points, thus giving a visual picture of the way our two groups of readers dealt with the two texts presented to them. For simplicity, these graphs leave out separate plots of accuracy scores. And in any case (because of our instructions to the audience), the difference in accuracy scores was rarely more than two percent.

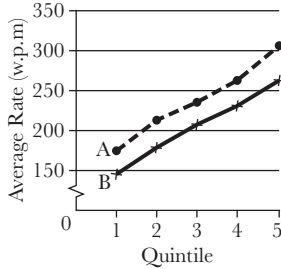
Now this was really a very pretty result. The left-hand graph shows how the two groups performed when they read the same essay, and it shows quite convincingly that our shuffling of the booklets had paired off two very similar groups of readers. Since we always got this kind of result on the control essays, we were persuaded that our procedures were sufficiently reliable that differences in the performances of the groups would be highly informative about writing quality.

And so they proved to be, as you can observe on the right-hand graph. In this case, one half of the audience read the original student essay neatly retyped and properly punctuated, while the other group, indicated by the broken line, read an expert revision which contained only stylistic changes, such as those which composition teachers usually recommend. The expert version was, as you see, read and understood much more efficiently than was the original paper. Moreover, since the student paper was a rather good one—in the B-minus range according to most of our teaching staff we had apparently developed a rather sensitive measure of the difference between good and bad writing. But what we had also developed, as we went on to discover, was an interesting measurement of some of the cultural dimensions that lie invisibly beyond style and rhetoric per se. It was the later discovery that germinated the subject of this present essay.

Before I discuss the next figure, I will describe the experiments that produced its results. In these experiments, instead of rewriting student essays, we decided to run some tests on well-written, published essays that had been stylistically degraded according to some specific rules. What we mainly did to degrade the essays was to change the order of clauses or words within the sentences so that the main idea was put in the middle instead of at the beginning or end where the original writer had put it. This also had the effect of interfering with the coherence of the original, by separating words that linked one sentence to another. But since we did not alter the actual words or the order of the sentences, the meanings of the two were essentially the same. The texts we used were passages from the multi-volumed *History of Civilization* by William and Ariel Durant, which could serve as an endless source of diverse materials, all written in a similar style, and all directed to the same readers. In the next figure you can see how our readers performed when they dealt with two essay pairs, one of them on a rather familiar topic for them, the other on an unfamiliar topic.

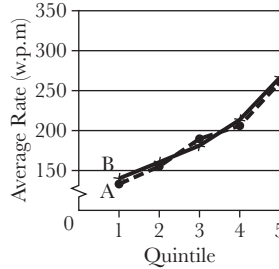
**Quintile Graph:
Durant, “Epicurean Rome”**

Reading rates of group A compared with rates of group B when reading original (A) and stylistically degraded version (B).



**Quintile Graph:
Durant, “Hegel”**

Reading rates of group A compared with rates of group B when reading original (A) and stylistically degraded version (B).



The essay on the left was a descriptive piece on everyday life in Ancient Rome, and it focused on the institution of the baths. The essay on the right was an explanation of Hegel’s conception of logic as metaphysics. Remember that the styles are equally non-technical in both cases, and that the original versions (represented by the broken lines) were both degraded in exactly the same ways. The only difference was the familiarity of the topic for our readers.

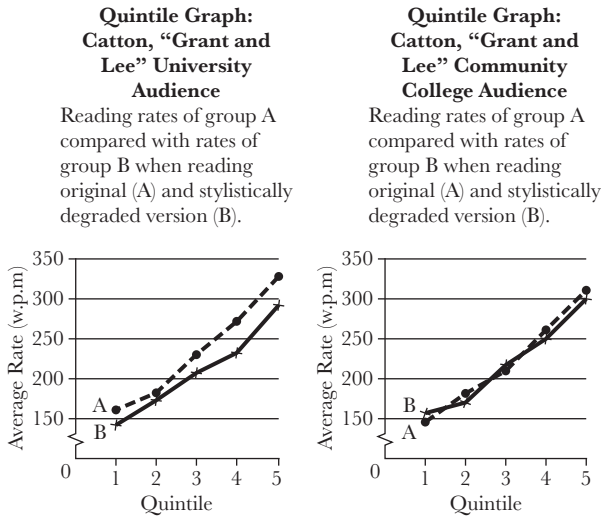
This was by no means an obvious or predictable result. In fact, one could imagine its going in just the other direction, with the double handicap of an unfamiliar topic *and* an incoherent style tending to widen the differences between the two essays on Hegel. What in fact happened, however, was that the topic itself required so much time and effort from the reader that the added effort induced by a poor style became irrelevant.

Or one could put the conjectured explanation in another way: the amount of pondering and dredging-up required to make sense of the linguistic surface was largely going on beneath the linguistic surface. Because the topic was unfamiliar, the assumptions behind the topic (even though vaguely known to the common reader) had to be worked out explicitly in the reader’s mind to make the linguistic surface meaningful. You will notice that the audience read the Hegel

about fifty words-per minute slower than the Roman baths-thus obliterating the magnitude of speed discrimination owing to style alone.

One’s first instinct is to say that the Hegel subject was *intrinsically* more difficult and abstract than the Roman subject, but that is probably quite wrong. The Hegel topic was harder for these readers simply because it was less familiar to them. If we had conducted our experiments at a convention of philosophers, it is highly likely that the two graphs on bathing and on Hegel would have looked very similar.

This interpretation is borne out by another experiment we conducted, again using systematically degraded texts. In this case our original text was a passage from Bruce Catton that contrasted the personalities of Ulysses S. Grant and Robert E. Lee. But instead of finding another, less familiar topic in Catton’s book, we simply presented this same text to two different kinds of audience, the first consisting of about two hundred university students, the second of about two hundred community-college students who were in basic and intermediate writing courses. The next figure shows the results:



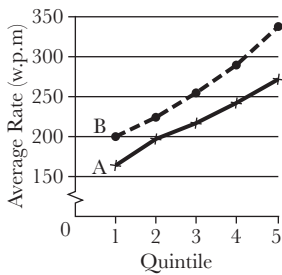
You will quickly notice the similarity with the pairing of Hegel and the Roman baths. For our community-college subjects, reading about Grant and Lee was rather like reading about Hegel’s logic

in the earlier case. This explanation assumes that there's a limit to the time and effort people are willing to expend in puzzling out the meaning of a text. The limit is probably a generous one in reading the short, 750-word texts which we used in our experiments. When texts are longer, reader tolerance may decline, and the effects of bad writing and hard subjects may be greater with these longer texts. This conjecture must, of course, be validated.

Community college students could do it, and could answer questions accurately, but they had to dredge up consciously so much unfamiliar, extra-linguistic material that the quality of the linguistic surface became irrelevant to them. To show that this interpretation is highly plausible, let me provide one last figure, in which the university audiences and the community college audiences are reading a simple student essay on friendship-along with its expert revision.

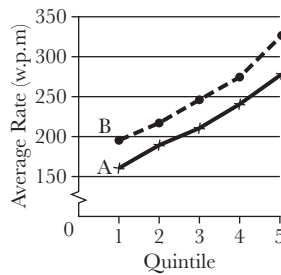
**Quintile Graph:
"Friendship"
University
Audience**

Reading rates of group A compared with rates of group B when reading student paper (A) and stylistically improved version (B).



**Quintile Graph:
"Friendship"
Community
College Audience**

Reading rates of group A compared with rates of group B when reading student paper (A) and stylistically improved version (B).



From this last example, it seems warranted to suppose that the quality of writing style only begins to make a significant difference when readers are culturally literate-when they have sufficient extra-linguistic knowledge to permit an easy competence in the linguistic sphere.

There is a famous anecdote about a Princeton matron who went to hear the great Einstein speak on the General Theory of Relativity. Her puzzled comment after the lecture was “I understood all of the words; it was how they were put together that baffled me.” This is a pungent description of how an understanding of the linguistic surface of speech depends upon an extra-linguistic knowledge of the subject matter which the linguistic surface treats. And just recently, I ran across a very clever and specific example of this phenomenon in the most recent issue of the *English Journal*. It was called “The Readability of an Unreadable Text,” by Robert Gordon.

He took a published text whose readability score was only fourth-grade level on the Dale-Chall index. As you know, these readability scores are based on the familiarity of words, the average sentence length, and the number of syllables in a 100 word passage. Such indexes to readability work reliably on the average because short, familiar words are generally used in familiar ways, and short sentences are easy to process. But this was the passage Gordon chose:

“Well then,” said Parmenides, “if there is a one, of course the one will not be many. Thus it cannot have any parts or be a whole. For a part is a part of a whole, and a whole means that from which no part is missing; so whether you speak of it as ‘a whole’ or as ‘many parts’ in either case the one would consist of parts and in that way be many and not one. But it is to be one and not many. Therefore if the one is to be one, it will not be a whole nor have parts.” (137-d)

This is, in fact, a very easy passage for anybody who knows Plato and what he is getting at in *The Parmenides*, but that includes very few people, I suppose, and nobody in fourth grade. Yet the linguistic surface *is* normal in syntax and fourth-grade level in vocabulary. Psychologically speaking, one might say that the topic is strange to those who lack a well formed “schema” for metaphysical speculation, because they have not been exposed to other passages like this one. In Piagetian terms, they have difficulty in accommodating

what is being said to schemata that they already possess. Thus an ordinary reader will need a great deal of time to work out ways of accommodating such a linguistic surface to more familiar schemata. Or, alternatively, the reader might need to get more words from an editor or commentator, in order to help him perform this accommodation. In either case, this simple linguistic surface from Plato will normally require a lot of processing time from a reader.

It seems to me that these considerations have potential application to the teaching of writing. It suggests that there exists an unbroken continuum from cultural literacy, to literacy in reading, and thence to competence in writing. How could a person possibly write better than he or she can read? One has to read one's own writing, after all, in making the most elemental stylistic choices. And how can one read one's own writing on a topic which is unfamiliar-or make guesses about one's reader's knowledge of such a topic? How would one know what to include or omit? Is it plausible to think that the basic writing students who found Grant and Lee to be unfamiliar topics for reading, would be able to write about Grant and Lee effectively? Surely they could do so only after long reading, in which they not only learned about Grant and Lee, but also learned what their own readers could be expected to know about Grant and Lee. One is led to the conclusion that advancement in cultural literacy is a firm pre-requisite for advancement in the skill of writing. This implies, of course, that there can be no quick fix to our students' shortcomings in writing. No amount of training in the skills of composition, in the writing process, and in the basics will by themselves convey the additional cultural information that underlies advancement in general literacy.

This (for me) newly-won insight fosters a certain skepticism about the practical importance of new researches into the writing process. I am strongly in favor of this research. We can never learn too much about the most efficient and successful methods of teaching the skills of writing. On the other hand, we also need a reminder

that even in the domain of writing skill per se, the cultural element always obtrudes. Except for spelling, and the motor skills used in forming letters, all aspects of grammar, vocabulary, and habitual speech patterns are determined by the earlier cultural backgrounds of our students. In our diverse culture, every classroom is full of students with very different cultural starting points, and this makes it highly unlikely that we will find a single optimal technique of instruction in writing skills—unless it be the method of individual tutorial instruction.

This insight was the real point at issue in the recent, much-publicized court case in Ann Arbor where parents of Black children argued successfully that white teachers should learn the speech conventions of Black children in order to lead them effectively into the standard conventions. Because the cultural starting points of these Black children were non-standard, the techniques of acculturation should take that fact into account. That was the common sense behind the ideological rhetoric in the case; and that is surely why the Black parents won, and the School Board decided not to appeal.

The whole incident points away from standardized methods of teaching writing, towards eclectic ones suitable to diverse classrooms. Most of us teachers in actual classrooms have learned that the most useful composition research has been the experience of our colleagues who teach the same sorts of students as we, in the same sort of cultural setting. Perhaps this fact explains the recent popularity of so-called “naturalistic” educational research.

My skepticism towards a pure skills-approach to composition applies also to our expropriation of findings from other disciplines such as semantics, linguistics, heuristics, psychology, psycholinguistics, and text linguistics. Here again, I speak as a newly-won convert away from my earlier sanguine expectations. These fields are full of rich insights which add to our theoretical understanding of language. But their contributions are elementary and universal

ones. Any teacher of Basic Writing is already dealing with cultural complexities of discourse that make the most sophisticated psycholinguistic experiments seem primitive. This was a conclusion that I reluctantly reached after immersing myself for five years in psycholinguistics, and then writing a chapter on the subject in my book on composition theory. I had to concede that every direct application of new findings from psycholinguistics was already well-represented in traditional textbooks, some of them going back to Hugh Blair's in the eighteenth century.

I hope I am not misunderstood in making these observations. I am not trying to suggest that the skills approach to writing has been overstressed. Anyone who writes knows that writing skills cannot possibly be overstressed or overtaught. My point is, rather, that the cultural approach, the imparting of essential information has been *neglected* as an integral part of our teaching of writing. I also hope I am not misunderstood when I stress that there can be no royal road, even paved with good research, to the teaching of writing. No *royal* road, but a road. There is a body of principles and maxims which successful and experienced teachers have acquired, and which constitutes a system of genuine practical knowledge. My skepticism has simply extended to the hope for a wonder drug that will quickly cure our students' threefold illiteracy in reading, writing, and in cultural knowledge. In short, the burden of my song is that writing competence is a deeply complex and far-reaching cultural acquisition, which has declined even where efficiency in teaching the skill of writing has advanced.

Having now made this point from several different directions, I will devote my last minutes to its positive and practical implications in moving us towards a literate democracy, the subject of this conference. My first inference concerns the unfortunate fragmentation of our teaching of literacy. I know from my own experience that this fragmentation has been accelerating at the college level since around 1950, when college English teachers divided themselves

into two separate professional organizations teachers of literature and teachers of composition—represented by the Modern Language Association on the one hand, and the Conference on College Composition and Communication on the other. The emphasis on composition in the past few years has accelerated this fall into disunity.

My own attitude to this division must be obvious from what I have been saying. It is a very unfortunate and regressive development. Every teacher of writing should ideally be also a teacher of literature in its broadest sense. The teacher of literacy needs also to be a teacher of cultural literacy. The worst of all worlds would be to have separate courses conducted by different technocratic specialists in reading, in writing, and in literature that world towards which we are now moving. Teachers themselves should be culturally literate, and should be able to teach all dimensions of literacy.

Another inference is that Back-to-the-Basics needs to be supplemented with Back-to-the-Classics: Back to Content, Shared Knowledge, Cultural Literacy. Cultural literacy implies, does it not, teaching shared knowledge about ourselves, our history and our world, our laws, our political, economic, and social arrangements, our classical texts from a great many domains including TV, the movies, and literature. The hope that an invisible hand will somehow integrate the fragmented knowledge that we convey in our schools is beginning to lose its appeal, as we infer from the reinstatement of required courses in the colleges. I hope that these are portents of an insight into the connection between cultural literacy and literacy per se. It is no accident that a report of declines in writing skills was accompanied by a report that forty-seven per cent of our seventeen-year olds—students on the verge of being voters—do not know that each state elects two senators, have no notion of the fifth amendment, believe that the President appoints members of Congress. We have all heard these horror stories, yet even as I write this, I read in the *Chronicle of Higher Education* that a plan to assess the

actual knowledge acquired by students in different school systems has been attacked by educators as inappropriate to our pluralistic society. In this context the word “pluralistic” begins to sound like a code word for evasion of responsibility.

In my own mind there is a direct rather than accidental connection between the new cultural illiteracy and the decline in writing competence. The decline is not altogether owing to TV, which in some respects is a force *for* cultural literacy. After I read one summer about three thousand freshman essays from university and community college students, I was persuaded that the decline in writing competence is real. But in most cases the decline is in the conventions and nuances of writing, more than in grammar and spelling. It seems connected with a decline in the amount of reading and writing students have done, but most of all, with the loss of a sense of membership in a literate community that provides an appropriate audience to which writing can be addressed. This new cultural illiteracy makes writing a strange and Kafkaesque activity for people who cannot possibly have a sense of a common reader to whom their writing could be directed.

There has thus arisen in exacerbated form the phenomenon of writing anxiety-comparable to math anxiety, but in some respects more disabling. Many of the most moving examples in Mina Shaughnessy’s *Errors and Expectations* are examples of the writing anxieties of basic writers. And Professor Morris Holland of UCLA, a psychologist, has observed in basic writers the classical symptoms, including physical ones, of acute anxiety.¹ From interviewing such students, Holland found that the chief cause of their fear and disorientation is their uncertainty about how their writing will be responded to-not just how it will be graded, but how it will be understood and valued. The student is like Kin Kafka’s *Trial* who knows he has broken some law and is to be punished, but cannot say *which* law it might be. I think that much of this disabling uncertainty and anxiety is well-warranted, because there is, for these student

writers, no dependable readership and no sense of membership in a literate community.

As teachers we want to introduce our students into this community. In this talk, I have argued that this means we must teach not just shared linguistic skills, but shared cultural knowledge as well. Finally, this raises the question whether this leads us logically to a Napoleonic sort of educational system in which everybody is taught exactly the same things as everybody else. I trust not. But we are led towards such a conception even if only to a limited extent. I have no doubt that there are some things we want every citizen to know—for instance, whether a U.S. senator is elected by the people or appointed by the President, and so on. Perhaps we could agree also that there are some texts or facts that we want everyone to share as a common inheritance.

But, beyond this agreed-upon, narrow core of knowledge, a totally regimented curriculum is quite unfeasible. The knowledge most needful changes over the years, and, in any case, educational regimentation is not going to be accepted in this diverse and independent-minded country. So, for us, the idea of cultural literacy must entail not just shared pieces of knowledge, but also shared *types* of knowledge. Even if all high school graduates do not read *Hamlet*, perhaps all of them could read one tragedy by Shakespeare? The cultural commonality would then partly reside in shared types of experience, and common *types* of knowledge is what cultural literacy partly means.

Psycholinguists have shown that these typical structures, called “schemata”, are required for both reading and writing. Moreover, these schemata can be shared even when they are built up from similar rather than identical materials. Reading one nineteenth century novel is about as useful as reading another in building up these complex convention systems. Seeing one episode of **MASH** will be as useful as seeing another. The same holds true in building up the shared schemata needed for writing. Nonetheless, the teaching of cultural literacy cannot be haphazard. It will not take care of itself. It requires us to agree about the *kinds* of materials we shall

teach, and also about some of the particular facts and texts we shall teach. It would certainly be useful to literacy if this idea of a central shared education were at least being discussed more widely than is now being done. I believe that no subject is more pressing for the advancement of literacy.

So much, then, for my speculations on the extra-linguistic foundations of literacy. This is where Mina's advice has led me so far. I have been led from basic writing to Shakespeare by what seems to me an unbroken chain of implication. It has renewed my sense of the rightness of training composition teachers in subject matters, including literature, and the wrongness of sustaining a separate class of composition specialists who teach nothing else, and who come to think of writing as a craft and a subject in its own right. On the contrary, writing is a craft that is part of a much wider literate culture which the teacher should not only teach but also exemplify. The English teacher has an authentic double vocation in both literature and in literacy. Mina Shaughnessy exemplified this double tradition so brilliantly that she and her work will continue to be for us at once a reassurance and an inspiration.

Further Reading:

The following sources were cited in the 1980 publication of this piece in the *Journal of Basic Writing*, Volume 3, Fall/Winter, 1980,

¹ J .D. Bransford, J .R. Barclay. and J.J. Franks. (1972) Sentence Memory: A Constructive Approach.” *Cognitive Psychology*. 3. 1972. 193-209.

Basil Bernstein, (1972). “Social Class, Language and Socialization,” in *Language and Social Context*, ed. P.P. Giglioli (New York: Penguin, (1972). Like many others, I decline to accept Bernstein's correlation of restricted code with lower class speech. All social classes use both kinds of codes. Nonetheless, Bernstein's terminological distinction is a useful one.

R. M. Krauss and S. Glucksberg, (1977) “Social and Nonsocial Speech.” *Scientific American*. 236 (February, (1977) 100-105. Line drawings reproduced by permission.

Christopher Lasch, (1978), *The Culture of Narcissism* (New York: Norton, (1978), Chapter 5, “The New Illiteracy.”

Robert Gordon, (1980),”The Readability of an Unreadable Text,” *English Journal*. 69 (March, (1980), 60-61 .

The astute reader will find in this text the germ of this book, and of the advance of the tacit background principle that has fortunately now become received wisdom among some top researchers.

APPENDIX III

Report on a Multi-year Shared-Knowledge Study

From: *Education Next*, 24(2), 52-57

**How Building Knowledge Boosts Literacy and Learning
First causal study finds outsized impacts
at “Core Knowledge” schools**

*By: Grissmer, D., Buddin, R., Berends, M.,
White, T.G., Willingham, D.T.,
DeCoster, J., Duran, C.A.K., Hulleman, C.S.,
Murrah, W.M., and Evans, T.*

Educators and researchers have been fighting the reading wars for the last century, with battles see-sawing literacy instruction in American schools from phonics to whole language and, most recently, back to phonics again. Policymakers have entered the fray, after more than a quarter-century of stagnant reading scores in the United States. Over the last decade, 32 states and the District of Columbia have adopted new “science of reading” laws that require schools to use curricula and instructional techniques that are deemed “evidence-based.”

Such reading programs include direct instruction in phonics and reading comprehension skills, such as finding the main idea of a paragraph, and efforts to accelerate learning tend to double down on more of the same skill-building practice. But research increasingly

points to another critical aspect of literacy: the role of student knowledge. For example, prior research by two of us found that a young child's knowledge of the social and physical world is a strong predictor of their academic success in elementary school. And advocates for knowledge-based education often cite the so-called "baseball study" where students reading a passage about baseball who knew about the sport were far better at understanding and summarizing the story than students who didn't, regardless of their general reading skills.

Knowledge-building reading curricula are rooted in these insights, and use materials and activities based on a sequence of integrated science and social studies topics, texts, and vocabulary. Yet the potential value of this approach is often an afterthought in state and district efforts to strengthen reading instruction, and the benefits to students of combining evidence-based curriculum with systematic efforts to build student knowledge have yet to be rigorously documented.

We conduct the first-ever experimental study of this topic, based on randomized kindergarten-enrollment lotteries in nine Colorado charter schools that use an interdisciplinary knowledge-based curriculum called Core Knowledge. To assess the long-term impact of experiencing a knowledge-building curriculum on student learning, we compare performance on statewide tests in grades 3–6 between kindergarten lottery winners who attended a Core Knowledge charter school with lottery losers who could not enroll.

We find that winning an enrollment lottery and enrolling in a Core Knowledge charter school boosted long-term reading achievement in 3rd to 6th grade by 16 percentile points, as compared to comparable applicants who did not win their enrollment lottery. The size of this gain is approximately equivalent to the difference between the mediocre performance of U.S. 13-year-olds on the 2016 Progress in International Reading Literacy Study and that of top-scoring countries like Singapore and Finland. Our results are also notable in their contrast with other studies of reading interventions, which typically find small, short-term effects.

Students and teachers in many public elementary schools spend up to two hours each day on reading instruction. While the component skills of literacy are critical to student development and learning, our findings point to a missed opportunity to accelerate literacy by building knowledge at the same time. Skill building and knowledge accumulation are separate but complementary cognitive processes, and while the adage “skill begets skill” may be true, a fuller description of cognitive development could be “skill begets skill, knowledge begets knowledge, and skill combined with knowledge begets them both.”

KINDERGARTEN LOTTERIES FOR “CORE KNOWLEDGE” CHARTERS

The Core Knowledge curriculum was created in the 1980s by E.D. Hirsch, Jr., a researcher and advocate of knowledge-building education. Its content and activities follow a planned sequence of the knowledge and skills students should accumulate and master in grades K–8 in all academic subjects and the arts. This “knowledge-based schooling” approach is rooted in the belief that a common base of shared knowledge is foundational for not just individual students’ reading comprehension abilities but also for our ability as a society to communicate and promote equal opportunity. An estimated 1,700 schools across the U.S. use the curriculum today, including more than 50 in Colorado.

To assess the impact of the Core Knowledge curriculum on student achievement, we look at nine oversubscribed Colorado charter schools that all use the curriculum, had been open for at least four years, and held random enrollment lotteries to register kindergarten students in either or both of the 2009–10 and 2010–11 school years. Our study includes 14 separate lotteries with 2,310 students, almost all of whom are from high- or middle-income families.

These families generally have a range of schooling options, including private schools, other charter schools, and public schools outside their district under Colorado’s open-enrollment law. About one in

five students in our sample applied to multiple charter lotteries—usually two instead of one. Some 41 percent won at least one lottery, and 47 percent of winners enrolled in that school. In all, 475 lottery winners went on to attend a Core Knowledge charter, while 1,356 students did not win the lottery and attended school elsewhere. In analyzing the effects of attending a Core Knowledge charter, we take into account the fact that not all lottery winners actually enrolled.

ATTRITION AND FAMILY CHOICE

We base our analysis on the performance of lottery applicants on the Partnership for Assessment of Readiness for College and Careers (PARCC) reading and math tests in grades 3, 4, 5, and 6, as well as the 5th-grade science PARCC test. By looking at these scores, we can compare the performance of students who did and did not experience a knowledge-building curriculum over up to seven years of their schooling.

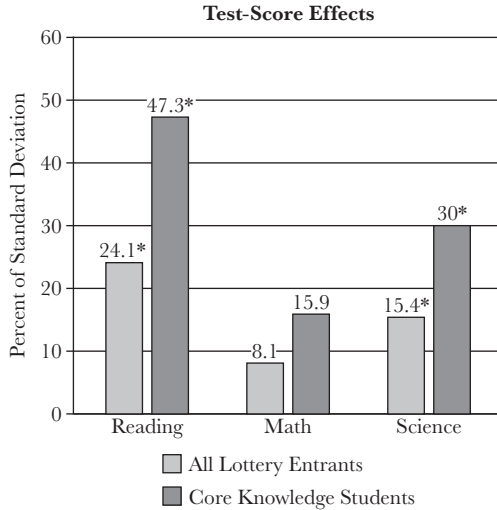
However, roughly 36 percent of students in our sample did not complete all scheduled PARCC tests through grade 6, and the attrition rate for students who did not win the enrollment lottery is 5 percentage points higher than for lottery winners. Detailed student data reveals three major factors at play. First, some students stop participating in Colorado’s PARCC testing because they move out of state, transfer to a different school, or are homeschooled. A second group of students don’t have test-score data because they are exempted as language learners or special-education students. Third, other students are off-track with their expected kindergarten cohort in later years because of delayed kindergarten entry (“redshirting”) or due to having skipped or repeated a grade.

To ensure that this attrition does not skew our results, we exclude from our analysis both the four lotteries with the highest rates of differential attrition between lottery winners and losers and the youngest applicants, who are more likely to be redshirted by their parents regardless of their lottery outcome. We also adjust our results for students’ gender, race or ethnicity, and eligibility for a free

or reduced-price school lunch to ensure that any demographic differences between lottery winners and losers do not introduce bias.

**Higher Achievement for Students at
Core Knowledge Charter Schools (Figure 1)**

Several years after entering a Kindergarten charter-school enrollment lottery, students who won the lottery and attended a Core Knowledge school did better on reading, math, and science tests in grades 3–6 compared to comparable lottery entrants who were not offered admission. The largest difference was in reading.



Note: Analysis based on student performance on annual PARCC tests in grades 3–6. Science is tested in 5th grade only. Sample includes 5,568 students from 10 charter-school lotteries and excludes applicants younger than 5.4 years (male) and 5.2 years (female). * indicates significance at the 95 percent level.

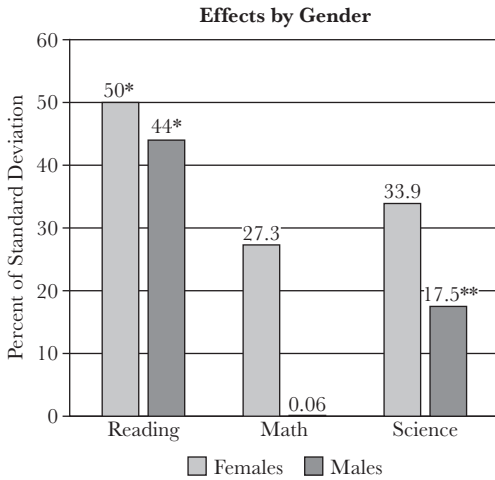
Source: Authors' calculations

ACCELERATED ACHIEVEMENT

We find positive long-term effects on reading performance for students who are randomly selected by a kindergarten enrollment lottery and attend a Core Knowledge charter school. Across grades 3–6, these students score 47 percent of a standard deviation higher in reading than comparable lottery applicants who did not have a chance to enroll. This is equivalent to a gain of 16 percentile points for a typical student (see Figure 1). Students

who attend a Core Knowledge charter also make outsized gains in science of 30 percent of a standard deviation, which is equivalent to a gain of 10 percentile points. Effects in math are positive, at about 16 percent of a standard deviation, but fall short of statistical significance.

Bigger Benefits for Females (Figure 2)
Attending a Core Knowledge charter school increased learning in all subjects more for female than for male students.



Note: See Figure 1. * indicates significance at the 95 percent level. ** indicates significance at the 90 percent level.

Source: Authors' calculations

The effects are slightly larger for female students than males (see Figure 2). In reading, female Core Knowledge charter students score 50 percent of a standard deviation higher compared to 44 percent for males, for a gain 17 of percentile points compared to 15 percentile points for males. Females gain about 12 percentile points in science and 9 percentile points in math, while males gain 6 percentile points in science and experience no gains in math. We also look at effects by student grade level and find no upward or downward trend, suggesting the effects may have stabilized by 4th grade (see Figure 3).

However, elevating student knowledge to a more central place and higher priority in research and policy will require a significant conceptual shift—the term “building knowledge” does not readily trigger a conceptual map linking the intervention to higher achievement, unlike common interventions like reducing class size, extending the school day, and raising teacher pay.

Well-designed measures of student knowledge should be considered as an important addition to other national measures for students in elementary grades. To be sure, they will carry an additional challenge. Any definition and measures of “general knowledge” will need both scientific validity and political viability at a moment when attempts to ban library books and shape course content are on the rise. Attempting to define what all public-school students should know will undoubtedly trigger debates and a variety of viewpoints. However, the evidence points to building knowledge as a critical foundation of student literacy with potentially lifelong effects. The benefits of skillful reading and broad knowledge should be a shared starting point, from which a stronger approach to reading instruction can grow.

David Grissmer is research professor in the School of Education & Human Development at the University of Virginia, where Richard Buddin is education consultant, Jamie DeCoster and Tanya Evans are research assistant professors, and Chris S. Hulleman is research professor. Thomas G. White is a former senior researcher at the School of Education & Human Development. Daniel T. Willingham is professor of psychology at the University of Virginia. Chelsea A.K. Duran is a postdoctoral fellow at the Curry School of Education at the University of Virginia. Mark Berends is professor at the University of Notre Dame. William M. Murrah is associate professor at Auburn University.

This article appeared in the Spring 2024 issue of Education Next.

APPENDIX IV

A Technical Note about Literacy: Hegel, Dewey, and ChatGPT

The Core Knowledge movement had its origins in a technical field on the nature of interpretation named “hermeneutics,” which is normally pursued by literature professors, theologians, and philosophers. Such a field is needed, for example, in religious studies where different religions are based upon diverse interpretations of the same text. It became a fashionable field in the twentieth century with the popularity of the writings of Martin Heidegger and the “hermeneutics of Being” in his *Being and Time*

A reaction to this metaphysical elevation of language appeared in the USA with my book *Validity in Interpretation*, which argued that language was a means of conveying identical mental objects between people—a process that succeeded or failed depending upon the sameness or the difference between the mental objects conceived by speaker and listener, reader and writer. The technical debates pertained to the degree to which the mental objects could be identical. Heidegger and his followers said, “No.” The philosopher Edmund Husserl said, “Yes.”

I sided with Husserl. That debate spilled over into education and the teaching of reading and writing by virtue of the *complete*

innocence among child-centered educators of the problem of shared meaning between two people. They have been so concerned with the model of individual “development” that they conceived reading and writing ability as general skills with different levels of expertise. They simply omitted to deal with the hermeneutical problem: what are the necessary foundations for identity of meaning between speaker and listener, writer and reader? Even an ardent Husserlian like me could see that for “reading” to occur, a lot of silent unstated background knowledge had to be shared to ensure sameness of meaning between reader and writer.

This fundamental language necessity argues for the AI Shanker principle of commonality in background knowledge:

What we really need—at the very least—are statewide curriculum frameworks and statewide assessment systems. Then, students and teachers in every school will know what kids are responsible for learning and whether they have learned it. (*New York Times* Dec 11, 1994.)

Our current low language scores mean low shared knowledge scores that contribute to our disunity and lack of communicability—as well as our lack of commitment to one another. Shared background knowledge (SBK) brings a sense of cohesion and commonality and is also needed for effective reading, writing, speaking, and listening. As the Norway Principle explains, reading and listening are not purely technical skills; they are *interpretive* skills. Our shared background knowledge is a *necessary* means to interpret the meaning of what another American writes or says. *Reading is interpretation.*

Before a text is interpreted, those very same words can carry diverse levels of meaning and complexity depending upon the nature of the “shared intentionality” it demands. To illustrate this point, I thought it would be useful to ask an artificial intelligence program the following question:

“Has AI developed a fully reliable translation program?”

I asked this because a correct translation of the original depends on a *prior correct interpretation of the original*. Well, apparently, AI so far lacks the empathic capacity that produces what current psychology names “shared intentionality,” an empathic capacity to a degree that is unique among human beings.

Here’s the answer from ChatGPT:

ChatGPT

While AI-driven translation programs have made significant advancements in recent years, achieving complete reliability remains an ongoing challenge. Machine translation systems, such as Google Translate and DeepL, have greatly improved their accuracy and fluency through techniques like neural machine translation (NMT). These systems are capable of translating text between many languages with decent accuracy for common phrases and contexts.

However, there are still limitations and challenges. Complex nuances, cultural references, idiomatic expressions, and domain-specific language can pose difficulties for machine translation systems. Moreover, the quality of translation can vary depending on the languages involved, the length and complexity of the text, and the specific context.

In certain situations, AI-driven translation systems can produce translations that are accurate and understandable, but they may still require human review and correction, especially for critical or sensitive content. Therefore, while AI has made significant progress in translation, achieving full reliability comparable to human translation remains an ongoing goal rather than a fully accomplished feat.

I was confident that this would be the sort of answer I would get—for the same reason one can predict that Lexiles and complexity formulas are *not* solid scaffolds that child-centered education

can build upon. Education needs to turn its attention to our critical need for shared background knowledge as an essential key to high literacy as well as to national unity.

With the best of intentions, our schools have made a devil's pact with a faux-quantitative approach to reading instruction, using Lexile levels and grade levels and complexity levels. These disregard anything *not* written down, especially the unstated shared background knowledge that is needed to interpret correctly what another person writes or says. Without both writer and reader sharing that unstated background knowledge, a text cannot be interpreted accurately.

That explains twin facts about our depressed reading scores. When we introduced diverse content for diverse students into our schools that necessarily diminished their *shared* background knowledge. And when we deluded ourselves with elaborate quantitative measurements of a text's "readability" that further reinforced the false notion that reading ability is a *general* skill having measurable general "levels." That's a technical mistake, a non-truth.

When such false premises were put into practice, that ensured our literacy decline. It is false that a text has an inherent difficulty level. Before it is interpreted, a text has no *definite* meaning and hence no definite difficulty level. By a person who readily shares the applicable background knowledge, the text is likely to be easily understood. The degree of *shared relevant background knowledge* between writer and reader is a variable that affects the "readability" of any text. It's far more decisive than word frequency or sentence length. In experiments that we reported in 1980, my colleagues and I demonstrated that to be the case.

A text does not have a unique meaning on its own. Definite meaning awaits interpretation, which may be right or wrong. Accurate reading is *correct* interpretation. And correctness depends on our applying the shared background knowledge that was intended by the author to be applied. Is this text ironic? Literal?

Figurative? Is it serious? Is it a joke? The same words can be read multiple ways. A *correct* reading is an accurate interpretation of what the writer intended to convey. That accuracy depends upon applying relevant background knowledge shared between writer and reader.

Almost any paragraph in any literate language can carry more than one set of complex meanings. Human language is not a univocal code. It is a multi-potential instrument of communication that depends on interpersonal guesswork to determine *which of multiple potential meanings a particular word sequence probably carries in a particular case*. Hence, it's not just a word sequence but also an attempt to communicate that requires what Michael Tomasello and his colleagues name "shared intentionality." Neither machines nor Lexile formulas nor readability formulas can determine the *actual* complexity of a paragraph. That will depend upon the intended meaning and the degree of shared intentionality between the author and the reader.

TIME MARCHES ON? HEGEL AND DEWEY

The change in schooling that we introduced in the 1940s named itself "progressive education." It claimed to be in tune with the inherent natural progress of civilization. That faith is not supported by the decline in our literacy. History is NOT always and everywhere marching forward—despite iPhones, artificial intelligence, electric cars, and MS-Word 11. Two centuries before the iPhone, that progressive faith was an explicit thesis of a romantic philosopher—Hegel, who was a strong influencer of John Dewey, our chief child-centered theorist. Dewey once confessed that Hegel had left "a permanent deposit" in his mind.

Hegel's first big book, *The Phenomenology of Spirit*, was the philosophical expression of the romanticism that emigrated to these shores after our Enlightenment founding. There were long debates about Hegel among Dewey and his colleagues, but on one point all agreed. Hegel claimed (and they did too) that human history is marching forward under an inherent *Logik*.

But Hegel and John Dewey were wrong about ever-advancing human history. Humanity's guiding ideas do *not* always march forward. Sometimes they take a wrong turn. Hegel allowed for that to happen *momentarily*. But such "moments" last many years.

We have *not* followed pragmatism in educating our young citizens-to-be. The ill effects of our adopting progressivism-romanticism in our early education have now become large, nation-threatening effects. We became too optimistic in the 1930s and 40s when some of our intellectual leaders, including John Dewey, adopted the progressive Hegelian view of history. That's where the term "progressive education" came from.

"Time Marches On" was the motto of a popular American newsreel and radio broadcast of the 1930s and 40s called *The March of Time*. It was shown as a movie newsreel and was broadcast as a radio program by *Time*, an immensely successful weekly news magazine. The magazine and its guiding ideas reflected the optimistic views held by many Americans in the 1930s. We were optimistic about our nation's economic growth and its successful contributions to World War I. Our optimism was reinforced later in the 40s by our decisive contribution to Allied victory in World War II.

Time magazine had been started in 1923 by two brilliant young graduates from Yale, who had breathed in confidence in the American future from their courses in the Yale philosophy and history departments. That same confidence was current in our other universities. And some of those courses featured Hegel as well as the father of American child-centered education, the philosopher John Dewey.

Time magazine was a huge success, and so were the newsreels and radio broadcasts that it sponsored, one of which was *The March of Time*. The aging John Dewey (1859–1942) was featured in more than one *March of Time* newsreel. One of them was entitled "Education in the 1940s." It was devoted to the new romantic, child-centered, "progressive" education. "Education in the 1940s" can be viewed instantly on YouTube. There you can attend, after happy classroom

scenes and commentary from experts, the brief final words of the newsreel, allotted to John Dewey. Here is his oracular final comment:

*The world is moving at a tremendous rate, no one knows where.
We must prepare our children not for the world of the past, not
for our world, but for their world.*

The music then swells, and the sonorous announcer pronounces the confident motto of the newsreel series: “Time Marches On!”

Despite having said that no one knows where the world is headed, Dewey nonetheless predicted confidently where the world of schooling was headed. He predicted that child-centered education would prepare our children for the future that was tending “no one knows where”! That doesn’t seem to follow. But then, maybe it does follow—if we follow Dewey’s unstated logic: “You and I may not reliably predict where the rapidly changing world is tending, but *God* knows; and God, through Nature, will guide the child’s *instincts*. That’s why we need to let the child unfold according to God and the child’s own nature.” As students of romanticism will confirm, this child-centrism is founded on a religious faith in the progressive march of the world and the natural development of the child.

But it’s a false faith and inconsistent with Dewey’s avowed commitment to pragmatism. Had Dewey lived, then maybe Dewey, the pragmatist, might have ultimately repudiated his attachment to Hegel’s progressive view of history and to child-centrism. We can’t know. He died in 1942. But confident child-centrism and its implicit religious faith in divine oversight of the child’s “natural development” is a view that is still widely held with confidence by its adherents.

Yet consider the following pragmatic observation by Professor Philip Cohen of the University of Maryland. He has shown that the reading score that an adolescent makes on the Armed Forces Qualification Test (AFQT) tends to predict his or her adult level of income—regardless of home background. The AFQT also tests math, but its key central sections are named “Word Knowledge”

and “Paragraph Comprehension.” We know the following about reading tests (stated memorably by the cognitive psychologist Daniel Willingham): “A reading test is a knowledge test in disguise.”

Moreover, as the Norwegian Parliament has explained, *a reading test is a **shared** knowledge test in disguise*. Once a pupil’s letter-sound correspondences are mastered, the nation’s silently shared background knowledge becomes a key component of literacy within that nation. That shared background knowledge is a key determinant of one’s grades on tests like the verbal AFQT *and* the verbal SAT.

We can restate Professor Philip Cohen’s finding about the economic predictive power of the AFQT this way: We find that an adolescent’s level of nationally shared background knowledge will tend to predict her future income level. We also know this: because knowledge builds on knowledge, the earliest years of schooling are essential to our aim of equal opportunity. We cannot wait until later grades. Philp Cohen determined that one’s mature level of national background knowledge is usually decided by one’s teens. After that, the process of catching up becomes ever steeper and more arduous, ever more resistant to what psychologists have named “the ratchet effect,” which, when systematically applied in the earliest grades, enables disadvantaged pupils to catch up. (See Chapter 4.)

A child’s *early* schooling is thus usually the key determinant of how fully she will come to possess literate shared knowledge as an adult—the shared knowledge that will determine her income level and competence. Shared knowledge builds upon shared knowledge. Intellectual capital builds up like financial capital. To him that hath shall be given, and from him that hath not shall be taken even that which he hath. When child-centrism caused our national reading scores to decline, those hardest hit were already hard hit.

One excuse should be quickly rejected. Our sudden decline in verbal abilities in the 50s and 60s had nothing to do with racial integration, despite the excuse often proffered that the plunge was “at least partly caused by the change in the composition of the

test-takers.” No! The verbal decline became visible well before school integration. It was caused by our new child-centered school policy inaugurated in the 1940s, well *before* we desegregated our schools.

Besides naming itself “child centered,” that new policy also named itself “progressive education” because it followed the progressive, forward march of time. But it was not progressive in *any* significant respect. We can’t sit back and rely on history or anything else. Ever since the Irishman Philpot Curran said it in 1790, various forms of his saying persist: “*The price of liberty is eternal vigilance.*” If you go to Curran’s original speech, he explains why it is so: “It is the common fate of the indolent to see their rights become a prey to the active.”

Vigilance is called for. That applies also to our curriculum makers. It says: “Don’t sit back and let nature take her course, as child-centrism recommends; you adults have the vigilant responsibility and duty to decide upon the content of the curriculum, just as Al Shanker insisted.” Our literacy started downward in the 1940s *because* of the child-chosen topics from the classroom library.

Progressive education introduced other school changes that were clearly observable and that, despite the term “progressive,” militated against progress, because they militated against offering to all children the shared background knowledge necessary to literacy in a modern nation. We could see that loss of coherence and focus physically manifested.

The confident Hegelian claim that history is reliably marching forward is challenged by the pragmatist who says: “*History is one thing after another—and sometimes it marches backwards.*” The pragmatist says that it’s up to us to do what *works*, rather than sit back and presume that God and Nature are overseeing both the *child’s* development as well as our *national* progress. That’s urgently the case when one is so persuaded that time is marching on that one has to *invent* an incorrect conception of reading—my next subject.

IS READABILITY DIRECTLY MEASURABLE FROM THE TEXT ALONE?

To create those “progressive” classroom libraries from which the child could choose her own book topic, the new “progressives” needed to adopt a theory of reading proficiency that viewed reading as a general skill with different levels of proficiency. That meant that the child could theoretically read about any subject when it was pitched at the appropriate “level.”

To get a firsthand clue that this “level” notion might be defective, you could try reading an English-language website that originates in Britain or Australia or New Zealand. Since it’s a public website, it is supposedly pitched to a general audience. Why then is it sometimes “above your reading level” even if you are a college professor? Answer: It’s not above your level. The whole notion of reading “levels” has been misconceived and wrongly described. In any speech community, it’s not “levels” that define comprehensibility. It’s the specific knowledge that is assumed to be shared within a particular speech community. Here’s a New Zealand example:

Damian McKenzie was back, and so was the Chiefs’ mojo. Coincidence? Most probably not, as the rested All Blacks playmaker returned from his week off with another stand-out display to lead his side to a commanding, record-breaking, 68-12 Super Rugby Pacific win over Moana Pasifika in Hamilton on Saturday night. The stats with and without their linchpin No 10 were already damning, and this round-seven ‘contest’ only enhanced them further, the Chiefs now boasting a combined scoreline of 234-95 with him on the field this season, compared to their 70-32 deficit with him off. Desperate to atone for their surprise slip-up to the Crusaders last weekend, Clayton McMillan’s side did just that, in cruising to a 10-tries-to-two bonus-point victory that ended up re-writing the record books.

Not a fair example, you say? Fair to whom? Obviously not unfair to the average New Zealander on *Stuff*, their most popular national website. *Stuff* would never put up anything “technical” or “obscure.” In the modern world, that silently shared knowledge for mass communication tends to be *national* in character and is ideally conveyed by the schools of that nation to all its young citizens-to-be.

Written English is a different grapholect in each different anglo-phone nation, where it assumes different national bodies of taken-for-granted knowledge. French and German are based on different unspoken background knowledge in Switzerland than in France and Germany. These consist of not just subtle differences of pronunciation but also big differences in what is being taken for granted in speech and writing among co-nationals.

Under child centrism we have relied on formulas based upon countable elements of language—sentence length and word frequency and other quantifiable characteristics. These yield a “readability” score and a “grade level” or “age level” assignment. The purpose of those analyses has been to guide publishers of schoolbooks and to guide the teacher in supporting the individual child’s “level” of reading ability.

That mode of rating texts was conceived to enable the child to read a text about any *topic* she might choose, according to her interests and developmental stage—so long as the text was at the “right level” for that child. It was proposed that the child, by following her interests, would engage more fully and that those interests would follow the child’s inborn, natural affinity for what was instinctively right for her nature.

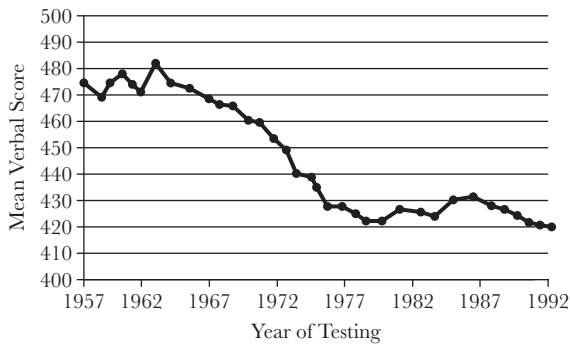
The implicit assumption is that the child has an inborn developmental blueprint that is best followed. Such developmentalism has been a key feature of child-centered education—and of the Romantic movement from which it arose. Hence it was convenient and fitting to adopt a view of reading that encouraged the child’s natural growth according to her innate developmental path.

“Reading level,” “growth,” and “development” became key terms in progressive education.

Thus an incorrect conception of real-world “readability” was instituted to promote the child-centered character of the reading curriculum. Professors Alan Bailin and Ann Grafstein (and others) have called in question the very notion of readability, since it omits key elements such as implication, disambiguation, and amplification—all of which depend upon unstated knowledge silently shared by the author and the reader.

In the 1940s we started implementing the wrong side of the Kim study on a vast scale. Under the new child-centered arrangement we began stressing individuality rather than commonality. When those children reached grade twelve and sat for the SAT verbal exam, they began recording ever lower verbal scores—without any of the normal bumps in the downward curve of the year-by-year trajectory.

Think of it: our national descent was as smooth as a children’s slide, whereas it had been normal before to see slight bumps up and down from year to year. The ever-increasing numbers of child-centered classrooms across the land guaranteed the ever lower downward slope.



Thus began the great SAT decline of the 1960s and 1970s. People have searched for explanations for the decline, not pointing to the furniture re-arrangements nor the curricular changes of the 1940s and 50s. Those changes could not be the cause! After all, they were “advances” in education. But they were not advances.

They were applications of factually incorrect, romantic theories of the child's mind, along with inadequate theories of reading.

In the 1940s and 50s lower shared knowledge among Americans began debasing our reading scores, our collective intelligence, and our national comity. We have grown increasingly unable to grasp accurately the intended meaning of the utterances of fellow Americans. We have become less literate and knowledgeable. The cognitive distance between advantaged and disadvantaged children and citizens has grown greater. Under child-centrism, American cognitive inequality and unfairness have grown.

THE ADVANTAGE OF INTEGRATING SHARED SUBJECTS IN EARLY GRADES

Individualized, child-centrism has imposed still another technical hindrance to higher literacy levels. The *individuality* of the child-chosen reading matter has prevented our early language arts programs from offering systematic integration and reinforcement with the language of the *other* subjects in the child's curriculum—math, the arts, history, science. A correlation of the child's knowledge and vocabulary in “language arts” with the other subject matters of early schooling is a strong reinforcement of the child's vocabulary and ability to learn.

The new child-centered scheme of individualized reading and writing thus introduced a *curricular incoherence* that has isolated language arts from the other subjects and fails to offer reinforcement to vocabulary building and vocabulary gain. That's a further hindrance to the forward march of disadvantaged children. It has also hindered advantaged students and helped cause a major decline in our nationally shared knowledge and language comprehension. Ultimately such curricular incoherence has induced not just a decline in our SAT scores but also a growing polarization of our interactions with one another.

CURRICULAR COHERENCE

Why wasn't it obvious from the start that early curricular incoherence would be the enemy of competence and community and equality? That common-sense view was obscured when we introduced a specially devised, technical account of literacy that appeared *to* justify romantic child-centered individualism: the theory of the child's general "reading level." That idea is roughly correct as it would have to be for any level of any skill in moving from novice to expert.

But that approach misconstrued the importance of *specific* shared knowledge in reading and hearing language. That oversight made it seem technically OK to offer children diverse, individualized subject matters to read and study based on complexity scores and Lexile ratings rather than building up their American literate shared knowledge. Thus, it was not the notion of the child's slow-growing *expertise* that was incorrect. It was our mistaken concept of what reading expertise is. After the early basics of "decoding" are mastered, reading is interpretation. That is not a *general* skill having different levels. It is a shared-knowledge-specific skill.

Two incorrect theories reinforced each other—the theory of ongoing historical progress and the theory of verbal interpretation as a general skill. The historical claim is refuted by the downward trend of our reading and our unity. The technical claim that reading is a general skill with "levels" whose surface features can be Lexiled and complexity-rated overlooks the silent, not overtly seeable or hearable or measurable silently shared knowledge between writer and reader. The Norway Principle has been ignored, and curricular incoherence has been countenanced by the incorrect theory of reading as a general skill with "levels."

That incorrect notion must be abandoned if we are to make progress. An entire literacy industry will need to reform itself. Instead of voicing angry resistance, some smart publishing companies are now slowly accommodating themselves to the growing demand for change and the technical and social realities of reading and writing.

The lack of content integration and the content incoherence of our early grades have caused our current fifteen-year-olds to score very low on the international PISA tests offered by the **P**rogram for **I**nternational **S**tudent **A**ssessment in reading, math, and science. On those tests we rank 25th among the nations of the world. Think of what it would mean for our nation if our state legislatures and state education officials understood and acted upon Albert Shanker’s urging and enacted the Shanker principle, setting forth a *shared-topic sequence for each subject in each early grade*—while leaving to localities the choice of the *materials* of instruction for such topics. That free choice of materials would obviate the accusation of partisan indoctrination. But following the Shanker Principle, the USA would soon rise in the international PISA rankings.

That is proved by a recent seven-year longitudinal study which has shown that the use of an integrated, shared early curriculum would place our students among the top five among the nations in their elementary reading scores—maybe even number one! America has the means to move away from our disastrous child-centrism. That issue is about as fundamental as an educational issue can be.

Further Reading: In Re Reading as Interpretation

March of Time Newsreel (1941) “Progressive Education in the 1940s.” <https://www.youtube.com/watch?v=opXKmwg8VQM>

Karl Deutsch, (1966) *Nationalism and Social Communication*, MIT Press

E. D. Hirsch, Jr, (1967) *Validity in Interpretation*, Yale University Press.

Walter Berns (2001) *Making Patriots*, University of Chicago Press

Tomasello, M., et al. (2005). Understanding and sharing intentions: The origins of cultural cognition. *Behavioral and Brain Sciences*, 28(5), 675–735. <https://doi.org/10.1017/S0140525X05000129>

Philip Cohen (2014) “How Well do Teen Test Scores Predict Adult Income?” <https://thesocietypages.org/socimages/2014/05/13/how-well-do-teen-test-scores-predict-adult-income/>

Alan Bailin and Ann Grafstein (2016) *Readability: Text and Context*. Palgrave Macmillan.

Daniel Willingham (2021) *Why Don't Students Like School?* 2nd ed. Josey-Bass.

General Further Reading:

Katalin Egyed et al., (1952) “Communicating Shared Knowledge in Infancy,” *Psychological Science* (26) 1348-1353

Hirsch, E.D., (1967) *Validity in Interpretation*, Yale University Press.

Tomasello, Michael, (2008) *Origins of Human Communication*, MIT Press,

Jean Piaget, (1972) “Some Aspects of Operations”, in *Play and Development: A Symposium with Contributions by Jean Piaget, Peter H. Wolff and Others*, ed.: Maria W. Piers, W. W. Norton, New York

E. D. Hirsch, Jr. (2001). “Romancing the Child” <https://www.educationnext.org/romancing-the-child/>

Tennie, C., J. Call, and M. Tomasello. (2009). “Ratcheting up the ratchet: On the evolution of cumulative culture.” *Philosophical Transactions of the Royal Society of London, Series B: Biological Sciences*, 364, 2405–2415.

Tomasello, Michael. (2014) *A Natural History of Human Thinking*. Harvard University Press.

Emmanuel Renault, (2016) “Dewey’s Relations to Hegel,” *Contemporary Pragmatism*, 12, 2016, 219-244.

Henrich, Joseph. (2016) *The Secret of Our Success: How Culture Is Driving Human Evolution, Domesticating Our Species, and Making Us Smarter*, Princeton University Press.

- Alan Bailin, Ann Grafstein, (2016) *Readability: Text and Context*, Palgrave Macmillan
- Hirsch, E.D., (2016). *Why Knowledge Matters*, Harvard Education Press.
- O'Madagain C., Tomasello, M. (2021) "Shared intentionality, reason-giving and the evolution of human culture. *Phil. Trans. R. Soc. B377*: 20200320. <https://doi.org/10.1098/rstb.2020.0320>
- Kim, J. S., et al. (2022). "Longitudinal Randomized Trial of a Sustained Content Literacy Intervention from First to Second Grade: Transfer Effects on Students' Reading Comprehension." *Journal of Educational Psychology*.
- Spelke, Elizabeth: *What Babies Know: (2022) Vol 1: Core Knowledge and Composition*: Oxford University Press. (Evidence for the *abstract* character of the baby's inborn "Core Knowledge")
- The Tennessee LIFT Report (2023) <https://lifteducationtn.com/wp-content/uploads/2023/01/2022-LIFT-Annual-Report.pdf>
- Grissmer et al. (2024) "A Kindergarten Lottery Evaluation of Core Knowledge Charter Schools: Should Building General Knowledge Have a Central Role in Educational and Social Science Research and Policy?" <https://edworkingpapers.com/sites/default/files/ai23-755.pdf>

About the Author



E. D. Hirsch, Jr., is a member of the American Academy of Arts and Sciences and founder of the nonprofit Core Knowledge Foundation, an organization with over five thousand Core Knowledge schools in all fifty states and abroad. He is author of numerous books, including the best-sellers *Cultural Literacy* and *The Dictionary of Cultural Literacy*. Other books by Hirsch on education are *A First Dictionary of Cultural Literacy; the Core Knowledge Sequence, What Your [First Through Sixth] Grader Needs to Know.; The Schools We Need and Why We Don't Have Them, The Making of Americans, and How to Educate a Citizen*. These works have influenced educational thought and practice in the United States and other countries. He received the QuEST award of the American Federation of Teachers, and the Conant Award for “Outstanding Contributions to American Education,” awarded by the Education Commission of the States.

Cover Illustration

Ivan Pesic

Illustrations and Photo Credits

American Debate League / 7

Krauss, R. M., & Glucksberg, S. (1977) / 132, 133

Marek Uliasz / Alamy Stock Photo / 54

Picture Courtesy of E. D. Hirsch, Jr. / 177

Social and nonsocial speech. *Scientific American*, 236(2),
100–105 / 135, 136

Vasyl Torous / Alamy Stock Photo / 55

THE RATCHET EFFECT

Shared Knowledge, Shared Values

The “Ratchet Effect” is the current, broad, anthropological name for *Cultural Literacy*. It comes several decades after E. D. Hirsch, Jr.’s best-seller of that name.

The ratchet metaphor was devised by Michael Tomasello and his colleagues in the field of evolutionary psychology. It describes a key contrast between human groups and groups of our nearest evolutionary relatives. Those species lack a uniquely human capacity that evolutionists have named: “shared intentionality.” It’s the ability to convey intricate subtlety of meaning from one group member to another.

Today, the shared meaning conveyed by the recorded and written word and by our national literacy level is our ratcheting device for achieving widely “shared intentionality” and for avoiding loss of acquired know-how from one generation to the next. It is the secret of group stability and progress.

Hirsch argues persuasively that in each nation of modern times the ratchet effect is the foundation of literacy, of technological improvement, and of emotional national unity. History and recent science combine to say that the ratchet effect must become an explicit progressive goal of modern schools and other national institutions

979-8-88970-377-8



Core Knowledge®