## USTE RODIN, THE THINKER: PHOTO BY ANDREWING

# Critical Thinking and the Liberal Arts

BY JEFFREY SCHEUER

Science and technology loom large in debates about higher education, but if democracy and a vibrant culture are among our goals, liberal learning must be part of the mix.



arnings about the decline of the liberal arts are ubiquitous these days, but they are hardly new. Jacques Barzun, the renowned scholar and dean at Columbia University, pronounced the liberal arts tradition "dead or dying" in 1963. Barzun may have spoken too soon, but by various measures, liberal learning is worse off today than it was then. Liberal arts colleges seem an endangered species as curricula shift toward science, technology, engineering, and math—the STEM disciplines. Students want jobs, not debt, and who can blame them?

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The conversation around the liberal arts hasn't changed much. It often sounds like this: "Many students and their parents now seek a clear and early connection between the undergraduate experience and employment. Vocationalism exerts pressure for substantive changes in the curriculum and substitutes a preoccupation with readily marketable skills." But those words were written by Donald L. Berry in 1977.

The liberal arts ideal still has its eloquent defenders, and there is evidence that good jobs go to liberal arts graduates—eventually. Despite the popularity of business and technology courses, students are not abandoning the liberal arts in droves. According to the National Center for Education Statistics, degrees in the humanities, in proportion to all bachelor's degrees, declined just 0.1 percent from 1980 to 2010, from 17.1 percent to 17.0 percent.

While defending liberal learning, however, educators might also ask some more basic questions: What do we mean by the "liberal arts," and why should one

world, had a different connotation: the Greek term *techne* meant skill or applied knowledge and had nothing to do with aesthetics as we know it.

Originally there were seven liberal arts: the trivium of classical antiquity, consisting of grammar, rhetoric, and logic, combined with the medieval quadrivium of arithmetic, geometry, music, and astronomy. As early as the twelfth-century renaissance, when universities emerged from the monastic and cathedral schools of Italy and France, those "arts" were supplemented in the curriculum by philosophy, jurisprudence, theology, and medicine.

Clearly, the model has evolved since then. Neither *liberal* nor *arts* is an essential or complete descriptor of what we consider a liberal education. Linguistic conventions have limited malleability, and avoiding the term *liberal arts* may not be feasible. Questioning such terms, however—and paying careful attention to language in general—are quintessential liberal arts practices.

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study them at all? Why do we rely on two standard answers—critical thinking and citizenship? What exactly do those terms mean (if they mean anything "exactly") and how are they related?

#### WHAT ARE THE LIBERAL ARTS?

The idea of the liberal arts has a nearly two-thousand-year history, dating to Latin writers of late antiquity, but the underlying questions about mankind, nature, and knowledge go back to the Greeks. Over the past century and a half, America has emerged as a super-power while adhering to a predominantly liberal arts model of higher education. But *liberal arts* is also a complicated and antiquated term, yoking together two words that don't obviously belong in harness and may not be ideally suited for hauling their intellectual load into the twenty-first century.

Liberal comes from the notion of freeing the mind; there's nothing wrong with that. As classics scholar Katie Billotte writes on Salon, "The Latin ars liberalis refers to the skills required of a free man—that is the skills of a citizen." But arts, in the Greek and Roman

There are at least three nested, and largely tacit, conceptions of the liberal arts in common usage. One, typified by America's liberal arts colleges, embraces the ideal of the integrated curriculum, encompassing virtually all nonprofessional higher learning, from the natural and social sciences to the humanities and the performing arts. At its best, this comprehensive vision recognizes both the value and the limitations of such categories, along with the consequent need for interdisciplinary learning. In fact, some of the most exciting scholarship is now happening between disciplines, not within them.

Free minds are flexible minds, trained to recognize that many areas of inquiry are interconnected and many disciplinary boundaries are porous. Categories are instrumental and practical: our tools, not our masters. Using them without obscuring the underlying connections is another hallmark of higher-level thinking. Climate change and biodiversity, for example, cannot be fully understood unless seen as both distinct and related phenomena.

In fact, two intertwining assumptions, among others, underlie the modern liberal arts tradition. One

is that every academic discipline has unique questions to ask, and thus its own techniques and epistemology. The other is that each discipline is also linked to others through common questions, techniques, and ways of knowing. Critical thinking is a key part of that shared epistemology, a set of skills that apply across the liberal arts curriculum.

A second frequent usage of the term *liberal arts* implicitly excludes (but doesn't denigrate) the sciences; and a third, still narrower, sense of the term focuses mainly on the humanities. Each of these implied definitions may be valid in particular contexts, as long as we're clear about what we mean, but the comprehensive one would seem the most useful overall. "Whatever else a liberal education is," the philosopher of education Paul H. Hirst writes, "it is *not* a vocational education, *not* an exclusively scientific education [and] *not* a specialist education in any sense." It is rather "an education based fairly and squarely on the nature of knowledge itself."

This idea of "the nature of knowledge" right away implicates philosophy, which is largely concerned with knowledge and thinking. However unloved or misunderstood by many Americans, philosophy is the mother of liberal learning. Economics, psychology, sociology, political science, and linguistics are just some of its younger offspring. The various disciplines contain it in their DNA—partly in the form of critical thinking. Those disciplines constitute the system for organizing and understanding the known world—human beings, societies, nature—that we refer to archaically as "the liberal arts." We isolate the rubrics of natural science, social science, and humanities, and their various subdisciplines, to the extent useful or necessary.

Indeed, a defining feature of any system is the concomitant stability and plasticity of its parts. The liberal arts form such an evolving system, consisting of stable but impermanent fields of inquiry that fuse at some points and fissure at others, adapting to cultural shifts while sharing a common language and assumptions, overlapping knowledge bases, and the core of critical thinking. Thus, we distinguish between psychology and philosophy, or between the scientist's view of nature and the poet's, but we also acknowledge the connections. In art, we look for the differences between impressionism and postimpressionism but also for the commonalities and historical continuities.

But however we define the liberal arts, no unique approach and no single method, text, or institution perfectly exemplifies the idea. In fact, it isn't one value or idea so much as a group of ideas that share what Ludwig Wittgenstein called a "family resemblance." At its best, a liberal education isn't intended to inculcate practical skills or to dump data into students' brains, though it may teach a fact or two. Instead, it's a wellspring of ideas and questions, and a way of promoting flexibility and openness to diverse perspectives.

#### WHY DO WE NEED THE LIBERAL ARTS?

The liberal arts have traditionally been defended as instrumental to two key elements of democracy: critical thinking and citizenship. Such arguments are indeed compelling, once it is clear what we mean by those complex notions. (Another feature of the liberal mind is that it doesn't shrink from complexity.) Citizenship, first of all, isn't just a political notion in the ordinary sense. Like the term *liberal arts*, it's more comprehensive and systemic: a social ecology involving a range of activities symbiotic with democratic communities. Three dimensions of that ecology are easy to identify.

One is the traditional civic dimension, which embraces a range of activities such as voting and jury service, advocacy, volunteering, dialogue and information sharing, and other forms of participation in the public sphere.

A second dimension is economic citizenship, which means being a productive member of a community: doing something useful for oneself and for others, whether in a factory, farm, home, office, garage, or boardroom. It's also about being a critical consumer and seeing the connections between the political and economic spheres.

A third kind of citizenship (and the particular focus of the humanities) is cultural citizenship, through participation in the various conversations that constitute a culture. This is arguably the most family-friendly of the three. Take your kids to see *The Nutcracker*, or for that matter to a circus, a house of worship, or a ballgame. The arts, religion, and sports are all potential venues for cultural conversations. It's no accident that many of our liberal arts colleges were founded by religious sects and host cultural events, sponsor campus organizations, and field sports teams. All are important forms of community.

These three forms of citizenship interrelate in subtle as well as obvious ways, and they are only the most visible bands on a spectrum of possible communal engagement. One could argue for other forms alongside or within them: environmental, informational, moral, or global citizenship, or civic engagement through leadership, mentoring, teaching, or military or other public service. But ultimately, it isn't about parsing the idea of citizenship. The overall goal is to foster vibrant and prosperous communities

with broad and deep participation, in public conversations marked by fairness, inclusion, and (where critical thinking comes in) intellectual rigor.

A liberal education is not about developing professional or entrepreneurial skills, although it may well promote them. Nor is it for everyone; we need pilots, farmers, and hairdressers as well as managers, artists, doctors, and engineers. But we all need to be well-informed, critical citizens. And the liberal arts prepare students for citizenship in all three senses—civic, economic, and cultural.

#### WHAT IS CRITICAL THINKING?

Critical thinking is the intellectual engine of a functional democracy: the set of mental practices that lends breadth, depth, clarity, and consistency to public discourse. It's what makes thinking in public truly public and sharable. And yet, like the liberal arts and citizenship, critical thinking isn't monolithic or easy to describe. An initial definition might begin like this: whereas philosophy is about thought in general, criti-

overlapping, and they admit of degrees. Assimilating them isn't like learning the multiplication table.

The rules and guideposts of informal logic help us to make sound arguments, avoid fallacies, and recognize our systemic human propensity for biases and misperceptions. (An excellent catalog of such pitfalls is Rolf Dobelli's *The Art of Thinking Clearly*.) Students who are college-ready have already absorbed at least the rudiments of this kind of critical thinking, even without formal training, much as we absorb elementary grammar by reading, listening, and writing.

Critical inquiry within the liberal arts curriculum goes well beyond that. Under the same broad rubric of critical thinking, it involves a suite of more advanced intellectual competencies, which bear the mark of the mother discipline we inherited from the Greeks. In fact, critical inquiry is the bridge between basic critical thinking and philosophy, and it's where most higher learning takes place.

The advanced skills that form that bridge include thinking independently, an almost self-evident intellec-

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cal thinking is about my thinking or yours or someone else's in the here and now.

Digging deeper, however, we find in critical thinking another web of ideas with a family resemblance rather than a fixed set of shared properties. In fact, there is little agreement in the considerable literature on critical thinking about precisely what critical thinking is or how it is propagated. As education researcher Lisa Tsui notes, "Because critical thinking is a complex skill, any attempt to offer a full and definitive definition of it would be futile."

Moreover, there tends to be some clumping within the bundle of ideas associated with critical thinking. For example, educators often cite the ability to identify assumptions, draw inferences, distinguish facts from opinions, draw conclusions from data, and judge the authority of arguments and sources. But that's just one important clump in the bundle. And these are not simply discrete intellectual skills; they are general and

tual virtue but a vague one (and no mind is an island); thinking outside the box (likewise crucial but unspecific); grasping the different forms and divisions of knowledge and how they are acquired (but the forms of knowledge and ways of acquiring them evolve); seeing distinctions and connections beyond the obvious; distinguishing reality from appearance; and engaging with complexity, but not for its own sake. We venerate truth, for example, while recognizing that there are different types and degrees of truth, some more elusive or impermanent than others. All of these perspectives have value, but they aren't reducible to neat formulas. In the end, critical inquiry is not a map or a list of firm rules but a set of navigational skills.

The assimilation of facts, ideas, and conceptual frameworks, and the development of critical minds, are equal parts of a liberal education. Or *almost* equal: at least outside the hard sciences, the intellectual tools and standards of rigor may have more lasting value

than accrued factual knowledge. Precisely because they transcend the knowledge bases of the various disciplines, critical-thinking skills enable students to become lifelong learners and engaged citizens—in all three senses of citizenship—and to adapt to change and to multiple career paths. Thus, as William Deresiewicz observes, "The first thing that college is for is to teach you to think."

Developing a facility with abstractions is part of the progression toward more sophisticated thinking that a liberal education affords. But that intellectual ascent doesn't require a leap into the maelstrom of philosophy. This is partly because philosophers deal with a number of issues that are of no particular concern to other students and scholars, and it's partly because philosophy isn't a substitute for other forms of knowledge. We still have to conjugate verbs, understand economic cycles, and listen to stories. But there's another reason we can acknowledge philosophy's role in the liberal arts without having to study philosophy itself: we are already philosophers in spite of ourselves, simply because we use language.

In our ordinary thought and speech we use abstractions all the time. We form (and qualify) generalizations, commute between the general and the particular, make distinctions and connections, draw analogies, compare classes and categories, employ various types of reasoning, hone definitions and meanings, and analyze words, ideas, and things to resolve or mitigate their ambiguity. These are precisely the skills that a liberal education cultivates. It heightens our abilities to speak, listen, write, and think, making us better learners, communicators, team members, and citizens.

#### THE IMPORTANCE OF CRITICAL INQUIRY

The college-level progression toward more sophisticated reasoning isn't just a matter of analytic thinking as a formal process. It is also reflected in certain organizing concepts that (like critical inquiry itself) transcend the various disciplines and unify the liberal arts curriculum. These concepts include truth, nature, value, causality, complexity, morality, freedom, excellence, and—as Wittgenstein understood—language itself, as the principal medium of thought. Critical inquiry, like philosophy, begins but doesn't end with careful attention to language.

This is something Wittgenstein failed to recognize. In seeking to bring philosophy to a close, by revealing its problems to be essentially linguistic ones, he paradoxically gave the field an enormous boost of fresh intellectual energy. "Mere" linguistic problems, it turns out, *are* philosophical problems—they are

problems about meaning, knowledge, reality, and our minds, not just about words—and we all have to deal with them, whether as art historians, economists, or biologists. Wittgenstein isn't considered the twentieth century's greatest philosopher for having been the last to turn out the lights.

The aforementioned concepts (and arguably some others) pervade virtually all branches of knowledge and reflect their common ancestry in classical Western thought. A slew of other important ideas, such as scientific method, transference, foreshadowing, three-point perspective, opportunity cost, immanent critique, double-blind study,



hubris, kinship, or means testing, do not.

Clearly there are no fixed rules governing this conversation; its signature is its openness. The roster of organizing concepts I've suggested is partial and contestable; in the end, they may simply be convenient ways of carving reality "at the joints," as Plato suggests. They are not substitutes for, or shortcuts to, knowledge or understanding. But they form a general roadmap indicating what students can expect to find, and the useful navigational skills they may acquire, if they venture onto the rich intellectual terrain of the liberal arts.

The STEM disciplines are obviously important to economic productivity, but so is the entire rainbow of human knowledge and the ability to think critically. That's why nations around the world are beginning to embrace the liberal arts idea that American education has done so much to promote, even as we question it. We need skilled thinkers, problem solvers, team workers, and communicators, and not just in the business, scientific, and technology sectors. The liberal arts embody precisely the skills a democracy must cultivate to maintain its vital reservoir of active, thoughtful, humane, and productive citizens.