## Can Humanity Forget What It Knows?

by Jacob Neusner



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vilization hangs suspended, from generation to generation, by the gossamer strand of memory. If only one cohort of mothers and fathers fails to convey to its children what it has learned from its parents, then the great chain of learning and wisdom snaps. If the guardians of human knowledge stumble only one time, in their fall collapses the entire edifice of knowledge and understanding. More important, therefore, than finding new things is sifting and refining the received truths. And the generation that will go down through time bearing the burden of disgrace is not the one that has said nothing new—for not much new marks the mind of any age — but the one that has not said what is true. These self-evident truths concerning the continuity of civilization pertain not only to wisdom, which philosophy and religion preserve. They address much more concrete matters than the wise conduct of affairs. There are things that we know because of the hard work of people who have come before, knowledge that we have on account of other people's trial and error. And that is knowledge that also hangs in the balance from age to age, knowledge that we can and do forget, with awful consequences for those who will come after us, to whom we are answerable.

The simple fact is that we either remember or recapitulate the work of finding out—one or the other. And now, with five thousand years of recorded science and philosophy,

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mathematics, history and social science, literature and music and art, if we lose it all, we probably shall never regain what is gone. It would be too much work, require resources of time and intellect not likely to come to hand. Lest my meaning be lost in abstraction, let me give a concrete case. When the turret of the battleship *Iowa* blew up, people could not repair it. The reason is that the materials and technological know-how to repair the guns, available when the ship was built during World War II, were lost beyond recovery. That is what I mean when I say civilization hangs suspended by fragile strands indeed. So too, when people decided to resume construction of the Cathedral of St. John the Divine in New York City, it was discovered that only a few stone masons were left in the world who could work the giant blocks from which a cathedral is built; they could train young apprentices, or the work would not be done. Languages too have come and gone; someone once told me of meeting the last person in the world who spoke Cornish as a native language, and linguists make haste to preserve what is about to be lost as an example of the potentialities of intelligible speech.

I owe this point to a biologist at Rutgers University, David Ehrenfeld, writing in *Orion* (Autumn 1989), who argues that "loss of knowledge and skills is now a big problem in our universities." It is a problem, he maintains, not only in the humanities, which we know are dying, but in the natural sciences. His case in point is one that surprised me. He says, "We are on the verge of losing our ability to tell one plant or

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animal from another and of forgetting how the known species interact among themselves and with their environments." This is because subjects fall out of the curriculum, or are taught piecemeal by people on the periphery of the university. He says, for example, "Classifications of Higher Plants," "Marine Invertebrates," "Ornithology," "Mammalogy," "Cryptogams" (ferns and mosses), "Biogeography," "Comparative Physiology"—"you may find some of them in the catalogue, but too often with the notation alongside, 'not offered.'" Ehrenfeld explains: "The features that distinguish lizards from snakes from crocodilians from turtles . . . aren't any less accepted or valid than they were twenty-five years ago, nor are they easier than they used to be to learn on your own from books without hands-on laboratory instruction." But people do not work in those fields.

Ehrenfeld further explains why the question is an urgent one. "One morning last April, at eight o'clock, my phone rang. It was a former student of mine who is now a research endocrinologist at a major teaching hospital in Houston. She had an odd question: at what point in animal evolution was the hemoglobin molecule first adopted for use specifically as an oxygen carrier? It was an essential piece of information for medical research she was planning." The information the student wanted was in an elementary "introduction to comparative biochemistry." When Ehrenfeld asked colleagues who was working on this sort of thing, he found out—nobody. The graduate students had never even heard of the field of comparative biochemistry.

Now here we have a very concrete case of the loss of knowledge once possessed. Ehrenfeld comments: "not outdated, not superseded, not scientifically or politically controversial, not even merely frivolous: a whole continent of important human knowledge gone." It was not dead, but it lived only in books, which no one read or understood or could use in the quest for knowledge. Ehrenfeld draws from this story conclusions that need not detain us. In his view the loss of comparative biochemistry is because of the flow of funds into the wrong hands, into the hands of people who are not "capable of transmitting our assembled knowledge of the natural world to the next generation." So, he says, "I fear for conservation when there is no one left in our places of learning who can tell one moth from another, no one who knows the habits of hornbills, no one to puzzle over the diversity of hawthorns."

If we now take the case as exemplary, we may ask ourselves where, in society, do we assign the task of holding on to what we know and making sure the next generation gains access to that? The stakes are too high for the answers to invoke the episodic and the anecdotal: "here am I, send me." The accident of individuals finds its match in the uncertainty of books; putting whatever is worth knowing into books, encyclopedias for example, will not serve, since mere information does not inform, and facts without explanation of what they mean and how they fit together do not bear meaning or serve a purpose. In age succeeding age, in some few places, the mind of humanity in the past is recreated, not preserved inert but actively replicated, reenacted as a model for the mind of humanity to come. I speak, of course, of schools as those few places, of teachers as the actors of knowledge in intellectually replicable form. For to preserve what we know we must repeat the processes of discovery, since the only real mode of learning is through discovery, which permits us not merely to know things, but to understand things. All the facts in the world about moths and hornbills and hawthorns, left uninterpreted, will not yield comparative biochemistry.

s it happens, I have spent my life working on a Adocument that was composed so as to present, within a few volumes, the life and structure, the way of life and world view and social theory, of an entire world of humanity: the Jewish people. A few remarkable intellectuals undertook to write a book that would serve as not a mere source of information but as a handbook of civilization: how to form society, what society had to know to do its work, all of useful knowledge so formed as to yield meaning and order and coherence, the deep structure of a social being. To write a book to do that, they worked out not an encyclopedia of information but a guidebook for a journey of mind, of intellect: this is how to think, this is what to think, this is why to think. They made certain, therefore, that what they knew would be known by coming generations, not because the institutions would endure, nor because the politics would accord to their doctrines priority of place. Indeed, the writers of this document would have found surprising Professor Ehrenfeld's certainty that problems are to be solved by putting money in the right hands, or keeping it out of the wrong ones.

They did two things. First, they wrote a book that could be sung. Second, they wrote notes to the music, so that anyone could sing the song. They did not spell out everything; rather, they gave signals of how, if you wanted to spell things out, you could do so on your own: don't ask, discover. So they opened the doors of learning to make room for all to come, learning serving then as an active verb. with discovery its synonym. These notes—signals of how a moving argument would be reconstructed, how reason might be recapitulated—were few, not the eight notes of our octave, but not an infinite repertoire of replicable sounds either. In any case the medium—notes to the music—is only secondary. Their primary insight into how civilization as they proposed to frame it should be shaped lay in another matter altogether. It had to do with their insistence upon the urgency of clear and vigorous and rigorous thought, the priority of purpose to argument, the demand for ultimate seriousness about things to be critically examined. Through practical reasoning and applied logic, they formed the chains to link mind to mind, past to future, through a process that anyone could enter—and no one, once in, would leave.

I said they wrote a book that could be sung. I mean that both literally, in that their writing was a document meant to be said out loud, not read silently; and in that it was meant to be studied in community through debate, not meditated upon privately and personally; writing that was, in the old and classic sense, political—public, shared, subject to coercion, if in the form of reason rather than naked power to be sure. But I mean that in another sense as well. James Baldwin said in a short story that every song begins to cry. So when I say they wrote a book that could be sung, I mean to invoke a metaphor of a piece of writing that begins not with the words and the music, but in the guts, a piece of

writing that is thought before thinking, insight before application and explication, attitude and emotion prior to their reformulation in propositions formed of words. I speak of revelation, such as most of us have known and of which all of us have heard: the unearned insight, the unanticipated moment of understanding. That is what I mean by a book that could be sung, of truth in a form of such art that whoever hears will see and feel, know in a knowledge that is defining.

So, if it is possible to forget what we have learned, leaving for a coming generation the task of recapitulating processes of discovery and interpretation, it also is possible to imagine and even identify the means by which, as a matter of fact, humanity has defended itself from the loss of what it already has in hand. If I use the Talmud, on which I work, as a case in point, others may well identify other appropriate cases. I think of such fields as music and mathematics, philosophy and its offspring in the social sciences, and a variety of the natural sciences as well, as fields of learning that link us to the accumulated treasures of important knowledge and sustaining truth. What they have in common are rules of right thought, a heritage of conventions to be replicated, retested, and realized from age to age, a process of testing and reevaluation, an endless openness to experiment, whether in the laboratory or in the mind. Much that we in universities identify as useful and important knowledge qualifies. For as a matter of fact, so far as the sum of human knowledge is concerned, either we in universities will convey it to the coming generation, or it will be lost.

So the task of universities, if not unique then at least distinctive among all of the institutions that preserve and hand on past to future, is to preserve civilization and afford access to civilization. Ours is the task of remembering, recapitulating, reenacting. Ours is the task of reminding, in a very odd sense of the word: to regain mind. The stakes in universities and what they do therefore are not trivial; we do more than serve, carry out a more than transient or merely useful task. We preserve, but in a very special way: we show the generation to come the how of knowledge, not merely the what; we show in our time what humanity has done over all time to make sense of the world.

Lest these observations on the nature of knowledge, the danger of forgetting what we know, appear mere commonplace, let me point out alternative views. For I set forth a profoundly conservative theory of universities and their tasks, based on a deeply conservative premise of the character of civilization and society. I maintain that it is more difficult to keep what we have than to add to what we know. I very much take to heart Professor Ehrenfeld's warning that, if the few old men who know how to work the giant blocks of stone die without heirs, we shall no longer know how to build cathedrals, and, in time to come, when we see them, we shall not even know what they are, the way when we see the monstrous statues on Easter Island we do not know what they are. The failure of civilization looms large in my mind: we can lose what we have but get nothing better. Society defines what is at stake, and risking its slender goods for the main chance threatens utter chaos: "gone, not outdated, not superseded, not even controversial, not frivolous: a whole continent of important human knowledge gone"! Indeed, so far as civilization finds nourishment in knowledge and understanding—and I cannot define civilization without knowledge and understanding—there can be no greater catastrophe than that loss of a continent of human knowledge; that clod that washes out to sea is all the ground we ever had on which to make sense of something.

What, then, does the fact that humanity indeed can forget what it knows dictate for public policy in the here and now?

First, our principal task in universities must be the work of rigorous teaching. At stake in our classroom is the coming generation and its capacity to know and make sense of things. Therefore, our main effort should focus upon the how of learning, how our students grasp what we wish to tell them, the processes by which we turn information into useful knowledge, useful knowledge into understanding—all through (re)discovery, the recreation of intellect.

Second, the creation of new knowledge is less important than the recapitulation of received knowledge. Most professors most of the time in most universities know little about what it means to create new knowledge. It is estimated that two-thirds of all professors have published scarcely a line; of those who publish books, most publish one, few more than one, which means the discovery of new knowledge in the responsible form of a statement for the criticism of others ends with the dissertation; and, so I hear, 95 percent of all scholarly books come from perhaps 5 percent of the scholars. What this means is that most professors most of the time in most universities find themselves expected to do what few of them have ever done, and fewer still have done more than once. We must therefore reconsider the entire structure of higher education, and our task is to reframe our work in such a way that the work people really do-and want to do and often do supremely well—is valued, and that that work is done. Most professors should teach more than they now do; but they also should study more than they now do in order to teach what they themselves have made their own.

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Third, the recapitulation of received knowledge is not the same thing as the mere repetition of things people think they know, or have heard from others assumed to know what they are talking about. Teaching is now defined in some few, conventional ways. For example, the teacher talks, the students listen. The teacher is the authority, the students inert and passive respondents thereto. Or opinions are exchanged, so that none is the authority, and there is no task but to say what one thinks. Or students listen to professors

but not to one another, and professors listen to no one but themselves, and writing lots of things down on paper is taken to demonstrate knowledge and understanding. But what if teaching is understood in other terms altogether, as engagement in a shared task of learning and understanding and explanation? What if teaching is a form of leading, by example — follow me! That is, to be sure, a risk-laden mode of teaching, and it is a way of teaching that fails much more often than it succeeds. For it makes the teacher into the model, the example, rather than the authority, and models or examples are there to be examined and criticized. That mode of teaching makes the classroom into a laboratory in which mental experiments are undertaken. Since, in this reading of the act of teaching, the professor turns out to be the guinea pig, my call is for us to play an unattractive role. But it is an honest one, and it is one that serves.

Fourth and last, if as I claim our task is to echo the natural sounds of knowledge that are knowledge, then some sounds will resonate, others not. Today we make a cacophony of noise; most of what we teach is mere facts, about this and that, and no theory instructs us on what takes precedence, and why some facts are trivial or merely particular. Entire areas of learning now turn out to be made up of an endless series of cases, such as the field of ethics. You can study journalistic ethics, medical ethics, legal ethics; you can raise money for professorships in all of these subjects, and you can make yourself into an expert on some area of ethics, medical ethics having attracted more than its share of failed careerists and bright-eyed opportunists. But these entrepre-

neurs of learning, trained in one thing so doctors of everything, make things up as they go along, for what sounds right is right; there is no theory of the thing they study, because there is no principled inquiry into the foundations of analysis and criticism. Yet we in the West have inherited a tradition of philosophical ethics that comes to us from the Greeks and a tradition of theological ethics that comes to us from ancient Israel through Christianity and Judaism; we have those-theories, those-principles of decision-making, that have laid the foundations for coherent thinking about a cogent subject. When a field can give only examples and cases, its casuistry attests to its intellectual bankruptcy. But the casuistry serves because philosophy is not learned, and, reinventing the wheel, the ethicists in the hospitals unwittingly teach a dreadful lesson indeed: what it means to lose what you've got.

So yes, humanity can forget what it knows, and the costs are there to see at Easter Island, or in the shelves of books we no longer can read but need to read, and in the areas of learning that are true and useful but no longer accessible. The task is not new knowledge but the reconsideration of knowledge. When we succeed—and we in universities are the only ones who can do the work—we shall hold on to what we have received, because we shall have made it our own. That is what I conceive to be the principal work of any generation: to make what has come to us as a gift into something that is our own, something that we too can use; in the case of learning, to make learning our own in such a way that we too can learn.

## Serum Sub Lumina Prima (svet cvetova u svetla sveće)

by Peter Russell

Move softly, cold moonlight,— Why disturb a stone? Blood ran once in veins, Bright the living zone,— Life wherever is its own.

Often now the stream runs dry—Pebbles catch crystal beams, The torrents rush a stifled sigh, Past is past and only seems.

What were once Enna's meadows, Multicolored, dazzling, wide — Now is but a waste of shadow, Drooping leaves and buds too late, Faded colours, petals dyed, A world of flowers by candlelight, — And dying embers in the grate.

— Translated by the author from his Serbo-Croatian original.