“Can you do Addition?” the White Queen asked. “What’s one and one and one and one and one and one and one and one and one and one?”
“I don’t know,” said Alice. “I lost count.”
“She can’t do Addition,” the Red Queen interrupted. “Can you do Subtraction? Take nine from eight.”
“Nine from eight I can’t, you know,” Alice replied readily: “but – “
“She can’t do Subtraction,” said the White Queen. “Can you do Division? Divide a loaf by a knife – what’s the answer to that?”

In this passage from *Through the Looking Glass*, neither queen shows particular pedagogical aptitude, or an approach of at least patiently encouraging Alice to find the correct answers. Although it would be unfair to use the above to satirize policymakers and educators who are sincerely concerned with improving children’s learning, the current tendency to promote early formal learning and its concomitant league table mentality also presents dangers that are amusingly encapsulated in this imaginary discourse.

In December 2000, Britain’s House of Commons Education Select Committee issued a report which concluded that children under five years of age should learn mainly through creative play in classes of no more than 15 for each teacher. It also concluded that there was no conclusive evidence that children gained from being taught the “3 R’s” before the age of six. After a thorough investigation of papers and witnesses, the chairman, Barry Sherman MP, forthrightly stated, “If you start formal learning early on, you can actually damage formal learning later on.” He went on, “Some people believe that the earlier you start children reading and writing and doing formal instruction the better. All the evidence we took, from every side, goes against that argument.” Tricia David of the Professional Association of Nursery Nurses commented, “Over-emphasis on formal education and abstract concepts of literacy and numeracy before the age of five can result in a sense of failure. Early failure can lead to long-term underachievement, disaffection and even truancy…. We could learn from some of our European neighbors, where children start school later than in the UK but still achieve better academic results.” The memoranda submitted to the
committee from the British Association for Early Childhood Education underscored this point of view:

Comparison with other countries suggests there is no benefit in starting formal instruction before six. The majority of other European countries admit children to school at six or seven following a three-year period of preschool education which focuses on social and physical development. Yet standards in literacy and numeracy are generally higher in those countries than in the UK, despite our earlier starting age.

The committee recommended keeping the school entry age at five, but that young children should receive the style of education appropriate to their stage of development. The report then goes on to highlight concerns given in evidence in this area:

the current focus on targets for older children in reading and writing inevitably tends to limit the vision and confidence of early childhood educators. Such downward pressure risks undermining children’s motivation and their disposition to learn, thus lowering rather than raising levels of achievement in the long term. . . . Inappropriate formalised assessment of children at an early age currently results in too many children being labelled as failures, when the failure, in fact, lies with the system.

This is one contemporary phase in a struggle that has been waged since the beginning of the 19th century. At its heart is our conception of childhood. The manner in which we receive our children into this world influences who they eventually become, and whether or not nature or nurture proves the short-term victor in any conceptual battles, the fact remains that the early years are vitally important. The basic assumption is that the child should be welcomed, but how that welcome is expressed can vary according to the times and the social fabric around the child. A report from the Swedish Aid Commission touches elements that confront us as citizens of the world’s affluent minority:

Basic to a good society is that children are welcome, are given a good environment during childhood and are the concern of the whole society. Children have a right to secure living conditions that enhance their development. Preschool has an important function in children’s lives. It offers a comprehensive programme and is the source of stimulation in the children’s development. It gives them a chance to meet other children and adults and to be part of an experience of fellowship and friendship. It is a complement to the upbringing a child gets at home.

In other words, children are born into a culture which, with all its assumptions,
history and aspirations, will have a profound effect on how they experience childhood and
indeed their adult lives as well. Human cultures vary enormously in their approaches to the
rearing of children, and one culture cannot claim to be the template of good practice for all.

Yet there is the factor of our common humanity and something that can be
recognized as universal childhood. In the present roller-coaster plethora of advice, research
and increasing polarization of views, we must look for deeper aspects of childhood so that
as parents, carers and educators we do not become restricted to a particular one-sided
approach or dogma. The interests of young children are the interests of the whole of society,
and their importance should be of primary concern if we are to find solutions to the many
social and ethical challenges facing us.

How quality in early childhood education and care is defined and evaluated will
be a concern not only for politicians, experts, administrators and professionals,
but will also be a matter for a broader citizenry.... it becomes important to create
forums or arenas for discussion and reflection where people can engage with
devotion and vision.... Within these arenas a lively dialogue can take place in
which early childhood education and care are placed within larger societal
context and where questions concerning children’s position are made vivid.

Being concerned about the early years of human life also has the capability to draw
out what is best in us as adults. If we wish to help our children develop devotion and vision
we must also strive for them ourselves, as in our world they are no longer just a given fact
of life. So we should welcome the fact that the role and content of early years education is a
matter of such a wide and intense debate, as evidence that its seriousness is unquestioned.

Of all the countries in Europe, only Northern Ireland starts compulsory schooling at
age four; five countries (the Netherlands, Malta, England, Scotland and Wales) begin at age
five; nineteen countries begin at age six, and eight at age seven. Interestingly, one of the
latter, namely Finland, scored very well in the latest Programme for International Student
Assessment (2001 PISA) study which assessed a quarter of a million children in 32
countries. In this survey by the Organization of Economic Cooperation and Development
(OECD) on skills in literacy, numeracy and scientific understanding, Finland scored
significantly better than any other European country. There may be other imponderables at
work here, but what this does show is that starting later need not necessarily be a disadvantage. A few years ago there was a national debate in Finland about reducing the school starting age from the traditional age of seven. However, in light of both commonsense arguments and scientific evidence regarding children’s neurological development, it was decided not to proceed with this.

The countries that scored less well are less likely to follow this aspect of Finnish educational policy. Germany’s low ranking has been claimed in that country to be analogous to ‘sputnik shock’ in the USA, and one result of this is growing pressure to start formal learning earlier. In spite of anecdotal evidence of numerous discreet summer pilgrimages by officials and policymakers to Finland, it seems they are rather inclined to adopt what Lillian Katz calls the “push-down phenomenon.” In her Royal Society of Arts lecture in London she pointed out that there is evidence of short-term advantage if three-, four- and five-year-olds are put in formal instruction, but that there is also evidence of some noticeable disadvantages in the long term. “There are two important points to note here,” she writes. “First, it’s only in the long term that you can see the disadvantages of early formal instruction. Second, early formal instruction is particularly damaging to boys…. My favorite theory is that, on the whole, early learning damages the disposition to learn.”

In fact, a 1992 International Association for the Evaluation of Educational Achievement (IEA) study of reading literacy in 32 countries showed that the age at which children began reading was associated with a gender gap in literacy. The ten top-scoring countries had a later starting age, with an average of 6.3. The study concludes, “It is clearly a plausible hypothesis that boys are too immature to begin reading formally at the age of five, and that their difficulties are represented in low achievement, relative to girls, at both the ages of nine and fourteen.” The as yet unpublished reworking of the IEA data for 27 of these countries has also showed that in only four countries did children start reading before the age of five, and that in all four countries (and only these) there was a distinct gender gap at the age of nine.

Caroline Sharp’s paper “School Starting Age: European Policy and Recent
Research,” produced for the National Foundation for Educational Research, gives a very balanced view of the whole issue of whether teaching literacy and numeracy can cause damage to young children’s development. She mentions that the early schoolstarting age in the UK was not established for any particular educational criteria; it was enacted into law in 1870 partly out of concern for the protection of young children from exploitation, partly to appease employers in consequently enabling an early school leaving age. In any case, six is the most common starting age worldwide. Sharp’s conclusions regarding academic achievement are that there is no conclusive evidence concerning starting school at different ages. The best available evidence suggests that beginning to teach more formal skills early gives children an initial academic advantage, but that this advantage is not sustained in the long term. There are some suggestions that an early introduction of formal curriculum may increase anxiety and have a negative impact on children’s self-esteem and motivation to learn. Top-performing countries in the Third International Maths and Science Study (TIMSS 1996) survey had a school starting age of six, although the factors for this need further research. “What we can say,” the survey concluded, “is that a later start does not appear to hold back children’s progress…. Certainly, there would appear to be no compelling educational rationale for a statutory school age of five or for the practice of admitting four-year-olds to school reception classes.”

In June 2001 the OECD issued its long-anticipated and highly regarded thematic review of early childhood education and care policy (ECEC) for twelve countries. It is significant that for the OECD, early childhood extends until the age of eight, and that “education” and “care” are conjoined. It is explicitly stated in the report that flexible curricula, built on the inputs of children, teachers and parents, are more suitable in early childhood than detailed, expert-driven curricula: “Contemporary research suggests… that the curricula should be broad and holistic with greater emphasis on developmental outcomes rather than subject outcomes… more process-related and co-constructive… defined by the vital interests and needs of the children, families and communities… and more in tune with socio-cultural contexts” This was an international call for flexible frameworks that leave freedom for adaptation, experimentation and cultural inputs.
The testing regime that accompanies the pressure for early learning is also under scrutiny. The London University Institute of Education’s systematic review of the available evidence made a wide-ranging search of studies of assessment for summative purposes in schools for students between the ages of four and eighteen. After searching through 183 studies, nineteen of which they identified as providing sound and valid empirical evidence, the researchers concluded, “What emerges is strong evidence of negative impact of testing on pupils’ motivation, though this varied in degree with the pupils’ characteristics and with the conditions of their learning…. Lower achieving pupils are doubly disadvantaged by the tests. Being labeled as failures has an impact on how they feel about their ability to learn.”

The researchers’ suggestion is, therefore, that new forms of testing be developed that make it possible to assess all valued outcomes of education including, for example, creativity and problem-solving, not just literacy and numeracy, and that, furthermore, such assessments be only one element in a more broadly based judgment. However, the researchers also found that “When passing tests in high stakes, teachers adopt a teaching style which emphasizes transmission teaching of knowledge, thereby favoring those students who prefer to learn in this way and disadvantaging and lowering the self-esteem of those who prefer more active and creative learning experiences.” Although this paper is more concerned with older students’ reactions, we should not overlook the fact that four-year-olds can feel themselves failures too, and the sense that they are letting their parents down can be devastating and lasting. It also begs the question of what is developmentally appropriate for young children’s learning that is in harmony with their natural need for “active and creative leaning experiences” as expressed in play.

Play is vital to human learning. It can consolidate and support learning in an infinite variety of situations. It assists the development of cognitive and social skills, encourages problem-solving skills, supports language development and the expression of emotions, and provides opportunities for exercise and coordination. It also needs space and time, which are the very factors the “hurried curriculum” threatens to efface. “We know that we can teach children to read at four if we wanted to, but we wanted them to spend those years playing. Here you teach them to give the right answers. We want them to solve problems, cooperate
with others and cope with life” It could be argued that children have a fundamental right to be prepared for school in such a way that the impact of their individuality does not become a handicap. The Hungarian educational sociologist, József Nagy, found enormous differentiation in children’s capabilities. “Children with a calendar age of six,” he writes, “can demonstrate a biological difference of plus or minus one year, a difference in mental development of plus or minus two and a half years, and a difference of plus or minus three years in social development.” In the 1980s, after researching school-based attempts to overcome this variation, he concluded that schools were incapable of doing so: “The result is that the school career of those entering is predetermined by their stage of development at entry.” As such a wide variation of capacities and personal development is unsuitable for a setting in which formal learning can successfully take place for all children, the view that the purpose of preschool is to prepare children for formal learning gains greater credence. Whole class teaching requires the children to be capable of receiving and benefiting from it and ensuring a certain stage of readiness. This is, in fact, the child’s right.

Perhaps at this point we should turn to the evidence of the poets, who have an instinctive, rather than analytical, approach to childhood that should not be disregarded just on account of its lack of academic rigor. Poets are often able to retain their closeness to the qualities of childhood that the rest of us lose. Miroslav Holub, himself a distinguished biologist, remembers his own Czech childhood and the need to inwardly breathe:

Ten million years
from the Miocene
to the primary school in Jecnà Street.

We know everything
from a to z.

But sometimes the finger stops
in the empty space between a and b,
empty as the prairie at night,

between g and h,
deep as the eyes of the sea,

between m and n,
long as man's birth,
sometimes it stops
in the galactic cold
after the letter z,
at the beginning and the end,
trembling a little
like some strange bird.

Not from despair.
Just like that.

If this space is so vital, where is the evidence that there is a greater good in losing it? What do we destroy if we fill up all the space in a child’s imaginative and emotional life? Lowering the age at which children start formal learning is, in fact, a small revolution with little debate or serious consideration of the consequences. “The precise educational rationale for the school environment being offered to four-year-old children has either been given inadequate attention or overlooked altogether.” A change of such significance and consequence surely needs careful and deep consideration, especially as its effects impinge on everyone and could be lifelong.

Beginning in the 19th century, preschool education in Europe had humanitarian roots in catering to children from working-class families. It was said of Margaret McMillan (1860-1931), a great pioneer in this work, that “Her anger burned at the violation of the lives of little children. She fought as one inspired to prevent their misuse.” A similar romantic notion was shared by Ellen Key, the Swedish educational reformer, whose influential book The Century of the Child was published in 1900. “The next century will be the century of the child just as the last century has been the woman’s century. When the child gets his rights, morality will be perfect.” Perhaps we do not have to be so romantically inclined or so passionately engaged to notice that children and the quality of childhood face new threats in the 21st century. We should take to heart such warnings as this:

What has become clear from this short analysis of international educational research is that the drive of successive English governments to introduce formal scholastic teaching at ever earlier ages serves merely to create the failure it
seeks to avoid. Until our first phase of education – for our three-, four- and five-year-olds – has goals, curriculum content and appropriate teaching strategies to prepare children for formal schooling… our educational “beginnings” will not be as “sound” as we might hope.

We should also applaud when a brave politician, such as Jane Davidson, the new Minister of Education for Wales, stands up to the prevailing trend and ends the formal educational testing of seven-year-olds so that Wales can be a place “where our children get the best start in life” in favor of a curriculum that is less formal and more child-centered, or when the Swedish government takes pride in its Early Years curriculum because it is the shortest and least prescriptive in Europe.

We live in our world,
A world that is too small
For you to enter
Even on hands and knees,
The adult subterfuge.
And though you probe and pry
With analytic eye,
And eavesdrop all our talk
With an amused look,
You cannot find our centre
Where we dance, where we play,
Where life is still asleep
Under the closed flower,
Under the smooth shell
Of eggs in the cupped nest
That mock the faded blue
Of your remoter heaven.

Our analytical approach has its limitations. Because we are working and caring for children, we should allow our feelings to participate in this debate. Children have the gift of “becoming” in the sense used by Walt Whitman:

There was a child went forth every day,
And the first object he looked upon, that object he became
And that object became part of him for the day or a certain part of the day,
Or for many years or stretching cycles of years.

In this gift of “becoming” we can find the roots of our humanity, our compassion, empathy and tolerance. Do we really need to squander these because of short-term goals and
a lack of foresight and due attention? Listening to the children themselves would be a good start.

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