# Literacy and the Appearance of Childhood[1]

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*Van den Berg describes childhood as a historical invention of post-medieval Europe: childhood appears in response to cultural changes in adult existence and consciousness. This essay supplements van den Berg's argument by showing that the 12th century invention of literacy provides the textual technology to gradually effect these profound psychological changes in child and adult consciousness. A brief phenomenology reveals orality and literacy to be different forms of being in the world. As cultural practices they structure memory, knowledge, and identity in divergent ways.*

> Je suis un peu lune et commis voyageur
> J'ai la spécialité de trouver les heures
> qui ont perdu leur montre
>
> . . .
>
> I am a bit moon and traveling salesman
> I have the specialty of finding the hours
> which have lost their clock
> – Vicentre Huidobro, *Obras Completas*

J.H.van den Berg's *The Changing Nature of Man* was published in Dutch in 1956 (1961 English edition), four years before the original French edition of Philippe Aries' *Centuries of Childhood* in 1960 (1962 English edition). These dates are significant because van den Berg worked on the almost 100 pages of the historical chapter "Adults and Children" before there was such a field as the history of childhood. Aries's book, which traces the appearance of the concept of childhood and modern family life through four hundred years of diaries, paintings, and descriptions of fashion, entertainment, customs, and schooling, became the seminal work that instituted the field of childhood history. It set historians on the path of researching childhood history coherently and consistently, and not just as an insignificant byproduct of adult history. Aries argued that childhood as a distinct phase in human life is a rather recent conception in Western history, and that the middle ages saw little difference between adults and children: as soon as medieval children were weaned they were treated as 'small adults' who participated in most mature adult activities (Aries, 1962).

Van den Berg's historical psychology examines the psychological changes that appear when cultural ideas and practices change. Like Aries, van den Berg argued that "childhood" is an historical invention which became

*Janus Head, 10(2), 445-459.* 

necessary at a certain period in the development of Western consciousness. Adulthood, after the Renaissance, had become complex and multivalent through the rise of modern science and technology. Van den Berg saw in Descartes the herald of this new epoch, who defined the mind as an internal, subjective phenomenon completely separate from the surrounding objective world. In the view of Descartes and his followers, understanding the world in its essence is only possible through mathematical principles, which provide the ultimate symbolic system for grasping the true reality of nature. Van den Berg studied the impact of the growing complexity of Western societies on the mental health of its citizens (van den Berg, 1974), and he traced the psychological appearance of childhood in relation to this new and complex adulthood (van den Berg, 1961).

While most adults were able to adapt to this 'modern' Cartesian world and shape its multivalency into the semblance of a coherent life, children could not do this on their own. Childhood appeared on the horizon of Western consciousness as a separate phase of life with its own social practices (schooling, fashion, entertainment) because adulthood had changed. The more complex society became, the longer it took to make the transition from the infant state to that of adulthood. "The child is only childlike in comparison to what is not childlike" (van den Berg, 1961, p. 32), and when adults become un-childlike, the true nature of childhood appears. Children become children when adults become more "adult."

As long as the adults existed in the same visible and understandable lived world as the children, the difference between them did not matter. The young were "small adults" (van den Berg, 1961, p. 28) rather than children, and their uniqueness was defined more by size and economic status than by a difference in psychological reality. By the middle of the 18th century, the dividing line between adults and children had gradually become visible. Rousseau announced its presence publicly with the publication of *Émile* (Rousseau, 1762/1979): he admonished mothers to build a sturdy fence around the tender plant of childhood and keep it away from the crudeness and dangers of adult society. "The child before Rousseau's time was a child in a different way from a child during and after this time, so different in a way that a period of maturation … failed to appear" (van den Berg, 1961, p. 26).

Van den Berg's great contribution to childhood history is the argument that a culture's adult existence is intimately tied to its concept of childhood: childhood changes in relation to changes in adult consciousness. Van den Berg agrees with Aries' central thesis that childhood is not a "natural state"

but an invention of Western history. He goes farther, though: not childhood, but adulthood has been invented since the middle ages, which in turn necessitated the appearance of maturation and a separate state of pre-adult existence.

Van den Berg's thesis, however, was lost in the following decades, while Aries' work has had a public but checkered reception history. In the 1970 and 80's, *Centuries of Childhood* inspired the new field of childhood history with scholars in enthusiastic support of Aries (Postman, 1994; Shorter, 1977; Stickland, 1973; Stone, 1977). There was also a tendency to disregard Aries' respect for medieval, pre-childhood culture and see childhood in the past as a time of abuse, neglect, and violation by ignorant adults; some writers even claimed that childhood in the past was a nightmare from which we are only now (20th century) waking (deMause, 1974). In the 1990's, in the wake of feminist historiography, Aries was challenged on the grounds that he missed most of the historical documentation that revealed that medieval adults did care for and love their children, and that they understood that children needed special consideration in religious and business training, as well as before the law (Hanawalt, 1993; Orme, 2001; Shahar, 1990). The field of childhood history had become polarized with both groups of scholars manning the barricades for one side or the other: did childhood exist in the middle ages or not?

It seems to me that framing the question in this binary way is too simplistic. It disregards the complexity of children's insertion into their particular time and culture. Van den Berg's thesis that childhood appears as a consequence of changes in adulthood deserves another look. The social and psychological lives of children can only be understood in relation to the kinds of adulthood that surround them.

*The Chirographic Bias*

In his argument for the similarity of adults and children before the 17th century, van den Berg cites 15th to 18th century references in which children appear extremely mature, among them a 16th century Huguenot child, Théodore Agrippa d'Aubigné, who could read Greek, Hebrew, and Latin when he was 6 years old, and who at 10 chose to die at the stake under the inquisition rather than renounce his faith. He mentions Blaise Pascal, born in 1623, who at 12 wrote a treatise on sound, "which was taken seriously by expert contemporaries" (p.27) and re-invented Euclidean geometry without any help from books or teachers. Young Goethe in the 18th century was able

to write German, Greek, and Latin before he was eight. It is interesting to note that the sign of maturity that van den Berg ascribes to these precocious children is of a particular kind: they are *literate* children.

Postman (1994) has argued that the historical appearance of Western childhood is deeply tied to the revival of literacy and the dissemination of print during the Renaissance. Van den Berg does not discuss literacy as one of the driving psychological factors behind the "birthdate of the inner self" (p. 228), but in the following I would like to supplement van den Berg's historical psychology with an examination of the psychological dimension of literacy and print in order to fill in the details of his picture of childhood and adulthood *before* Rousseau. The literacy of d'Aubigné, Pascal, and Goethe is not just an incidental addition, a skill acquired along their developmental paths. Literacy is deeply entwined with the structure of consciousness, and it profoundly changes the individual who learns how to read (Egan, 1988; Ong, 1982; Postman, 1994), as well as the culture that embraces general literacy (Eisenstein, 1979; Goody, 1968; Havelock, 1982; McCluhan, 1962). Illich and Sanders (1988) have argued that alphabetization, i.e. the translation of the phonetic sound system into visual alphabetic notation, is an epistemological practice with far-reaching impact on mind and culture. Illich (1996, p. 5) has traced the appearance of the "alphabetic epistemology" and the creation of the "bookish" mind through the monastic reading and writing tradition of the 12th century, an epistemology which since then has been disseminated through the printing press and institutionalized in the schooling of children.

Following Illich's ideas about alphabetization and textuality, I want to suggest that textual literacy is a *technology.* The word technology is generally defined as the application of tools and methods, particularly the study, development and application of devices, machines, and techniques for manufacturing and productive processes. *Textual literacy is a technology in the sense that it functions as a device, a technique, or even as a machine for manufacturing a particular cultural symbolic space*. We are used to thinking of technology as tangible machines and devices, like cars, telephones, computers, and satellites. Textual technology, however, operates in the invisible, symbolic dimension of cultural knowledge. While its visual implements – books, word-processors, websites – are usually defined as technologies (of print and information processing), the technological structure of their *textuality* goes by unnoticed. We don't see reading and writing as a technological device because it has become the unquestioned norm for Western consciousness. Since the Renaissance the popular mind – including my

own – has been submitted to this technology, and we have been "alphabetized" and "textualized." Most Western, literate people think of textuality as a useful tool of the mind, to be used or not depending on our whims. But like all technologies, it has a power that goes beyond its literal tool use, and brings with it – to paraphrase Romanyshyn (1989) – its own symptoms and dreams. It is startling to realize that my own consciousness and thought processes have been deeply shaped by literacy, and that I am almost completely unconscious of this fact. Textual literacy does not mean that I can read and write, or that I peruse the daily newspaper in the morning; rather, it means that, since early childhood, my mind has been shaped by the kind of thinking and behaving that literacy requires. As an educated person, I live in the symbolic universe that alphabetization and the printing press have created for the past seven hundred years. Moreover, the constitution of our psychological lives and the ways we think of ourselves as individuals, as subjects, and as selves are a product of textual technology:

> The idea of a self that continues to glimmer in thought or memory, occasionally retrieved and examined in the light of day, cannot exist without the text. Where there is no alphabet, there can neither be a memory conceived as a storehouse nor the "I" as its appointed watchman. With the alphabet both text and self became possible, but only slowly, and they became the social construct on which we found all our perceptions as literate people. … The self is a cloth we have been weaving over centuries in confessions, journals, diaries, memoirs, and in its most literate incarnation, the autobiography…. (Illich & Sanders, 1988, p. 72-3).

The way we see the first person singular is determined by literacy and the cultural symbolic universe which comes into existence through textuality. It has to be reproduced in every child which is done by teaching him or her to read, to write, and to navigate the accumulated textual knowledge of mathematics, social science, natural science, and literature.

In the spirit of van den Berg' historical psychology, this profound psychological blind-spot, this "chirographic and typographic bias" (Ong, 1982, p. 77) in our personal and cultural lives, should be investigated if we want to understand how we as contemporary people have come to be, and what we are doing to our children. For is it not the task of the psychologist to uncover the unconscious, latent dimension of our life-worlds? I also think that many of the transformations that van den Berg lists as aspects

of the growing complexity of modern life are due to – or at least find their supportive technology – in bookish textuality: increasing individuality and loss of communal belonging, the disconnect from the sensible world, the experience of a discontinuous present and the insistence on historical homogeneity and continuity, as well as the interiorization of psychological and spiritual experience are all aspects of the phenomenology of reading and writing. Writing, as Ong (1982) remarks, "is a particularly pre-emptive and imperialist activity that tends to assimilate other things to itself…" (p. 12).

Since this project is vast, I can offer only a few glimpses into the nature of reading and the education of children *prior* to the textualization of the word. I hope to awaken in the reader the same sense of dislocation and surprise that I felt when I encountered the otherness of the 12th century world which was not shaped by printed texts. If we could assume the perspective of a 12th century person, our contemporary relationship to books, children, and the world around us would probably appear in all its strangeness.

*Oral Reading: Mumbling and Munching*

One way of framing the question of literacy is to look at the different life-worlds of people who live in a predominantly oral culture and compare it to people whose daily lives are permeated by textuality. In the following section, I want to discuss two 12th century examples that provide us with the flavor of how textuality and education were experienced in a world before print: the monastic practice of reading out loud, and the memory training of a child monk. The late middle ages, particularly the 12th century, is a turning point in terms of literacy and textual technology (Orme, 2001; Reynolds, 1996). In his fine study of Hugh of Saint Victor, a twelfth century monk at the dawn of scholastic reading, Illich (1996) paints a picture of literacy and textuality which is very different from our own. He offers a historical lens that allows us to see how strange and extraordinary our modern experience of reading and writing really is.

If you entered a medieval scriptorium, you would find yourself in a "community of mumblers and munchers." The readers would softly read out the words from the page, the scribes would dictate the words to their hands as they copied the text, and all would have intense bodily experiences as the sound settled into their senses and bones; some readers, like Talmudic scholars today, rocked back and forth. The page was a "sounding page," a

"soundtrack picked up by the mouth and voiced by the reader for his own ear. For the medieval reader, the page is literally embodied, incorporated" (p. 54). Reading a sacred text was a profoundly meditative act which was meant to let the word of God resonate in body and soul. During the *lectio divina,* the word of God, through the Holy Scriptures, could resound in and awaken the meditating soul to deeper contact with God. Holy Scripture was not a historical text documenting literal, past events, but a living path of initiation into the mysteries of the divine. St. Bernard of Clairvaux exhorts his monks: "You must be pure, ruminating animals, that what is written might come to be" (as cited in Illich, 1996, p. 56). Compare this carnal "deep view" of the written page to our contemporary understanding of texts as primarily *visual* events: "the modern reader conceives of the page as a plate that inks the mind, and of the mind as a screen onto which the page is projected and from which, at a flip, it can fade" (p. 54).

It is almost unimaginable to us that most people in Hugh's time, even highly learned scholars, did think it impossible to read silently without moving their lips. When Peter the Venerable had a cough, he could not read a book, neither in the choir nor in his cell to himself. True silent reading was occasionally practiced in antiquity, but it was considered a feat: Augustine was amazed that his teacher Ambrose sometimes read a book without moving his lips! Silent reading reduces the play of all senses and brings them under the dominance of the eye. It requires and creates a new visual consciousness where the world – real and symbolic – is spread out before the spectator, rather than surrounding him like sounds from all sides.

Even though young monastics were early on trained to be people of the book, their experience of bookishness, as we saw above, was very different from the book centered learnedness of later times. Hugh's scholastic practices were still deeply rooted in *oral* culture. This attitude can also be seen in Hugh's instruction program for novices. The child monk learned to build up a "memory theater" or "memory maze" in which thousands of mnemonic items that referred to biblical passages were placed. Mnemonic devices have had a long tradition in oral cultures whose store of knowledge had to be passed on through verbal exchange from one person to the next. Greek and Roman rhetoricians used memory theaters to memorize their speeches (Yates, 2001). Hugh's basic memory maze was organized as a two-dimensional system of highways that organized biblical history on which the pupils mind could dart back and forth. For the advanced student it was built up into a three-dimensional ark with thousands of items placed in different locations. It took the child many years to be educated into this

sophisticated memory system, while also gradually learning to understand and read the Latin texts (Illich, 1996). And even though these children learned how to read and copy the handmade manuscripts that were available in their monastic culture, their reading was not for information or factual knowledge. There were no reference books, and it was a century later, in the middle of the 13th century, that a teacher like Thomas Aquinas would for the first time quote verbatim from a reference text and lecture from his own extensive notes. The young monks of the 12th century had their factual knowledge firmly engraved in their memory arks. Their mumbled reading was a contemplative, oral activity which was performance, rather than information oriented.

Illich points out that writing in the vernacular did not exist, and that almost without exception alphabetization was reserved for classical Latin. The child entering the monastery would in all likelihood never apply reading and writing to anything else than Latin. St. Francis of Assisi in the early13th century became the first to break the "Latin only" taboo by writing the *Canticle of the Sun* in his native Italian tongue.

Through Hugh's instructions to the child novice, we see the rigor of medieval education and character formation, which was reserved for the few who were placed into monastic life. Most other medieval children of the twelfth century had no formal education apart from apprenticeships on farms and in households, craft workshops and mercantile endeavors, military garrisons and feudal courts. Schooling becomes only necessary when the induction into literacy becomes a widespread cultural necessity and practice. Four hundred years later, by the middle of the 17th century, we have a proliferation of choir schools, "little schools," colleges, Latin schools, and private tutorials which were frequented by children from all classes, though the majority of the school population consisted of future burgesses, lawyers, and churchmen. Many children of the nobility were not instructed in reading and writing, while sometimes peasant children were (Heywood, 2001).

Unschooled, medieval children lived in a world that was not marked by literacy, but by traditional oral practices. Most adults could not read or write either, and most children gradually drifted into the labor force and assumed adult responsibilities. A number of historians have argued that the difference between medieval adults and children was so small because both lived in a society that was mostly oral and immediate, where children and adults shared in communal work and play (Aries, 1962; Mook, 1977). As Barbara Tuchman (1978) pointed out, medieval behavior was characterized

by 'childishness' of all age groups, which meant that, for the majority of people, there was not much difference between adults and children. Perhaps a better term than "childishness" is the notion that medieval culture was profoundly oral and not literate, which makes it appear "childish" to our modern literate sensibility. Children and adults shared the same physical and symbolic world, which did not require much formal education from its participants. In light of van den Berg's insight into the related changes in childhood and adulthood, childhood as a separate state of being was not necessary in the middle ages because adult life was communal, transparent, continuous, and easy to slide into. Few barriers separated child existence from adult existence.

*The Psychodynamics of Orality*

People who read and are educated into a textual symbolic system live in a different world than oral cultures. Reading and the proliferation of textual technology has a profound psychological impact on adults and children and their relationship to each other, their culture, and the natural world around them. Some of the psychodynamics of orality, according to Ong (1982), center around the experience of the word as sound. Language among primarily oral peoples is experienced as "a mode of action, and not simply a countersign of thought" (p. 32), and the word has great power, as we saw with the mumbling monks above. The sound arises from and resonates through the body, and it is sensed as evanescent and impermanent: "sound exists only when it goes out of existence" (p.32). At the same time, it has the magical power to entrance an audience or lead them into action.

> In a primarily oral culture where the word has its existence only in sound, with no reference whatsoever to any visually perceptible text, and no awareness of even the possibility of such a text, the phenomenology of sound enters deeply into human beings' feel for existence, as processed by the spoken word. For the way in which the world is experienced is always momentous in psychic life. The centering action of sound (the field of sound is not spread out before me but is all around me) affects man's sense of the cosmos. For oral cultures, the cosmos is an ongoing event with man at its center. Man is the *umbilicus mundi*, the navel of the world …. Only after print and the extensive experience with maps that print implemented would human beings, when they thought about the cosmos or the universe or "world," think primarily of something laid out before their eyes,

> as in a modern printed atlas, a vast surface or assemblage of surfaces (vision presents surfaces) ready to be explored. (Ong, 1982, p. 73)

For the oral human being, words are not a quiescent, visual chain of signifiers, but, as Homer put it, they are "winged words," suffused with "evanescence, power, and freedom" (p. 77). Literacy brings with it a shift in the experience of the word as issuing from the sound centered navel of the world to a primarily vision-centered experience of language. Vision dissects and isolates events in a world that is spread out before the eyes. The silent page rather than the resounding word becomes the metaphor for the human mind and also for the book of nature. Ong connects the oral and literate ways of experiencing language with different modes of thinking. A visual, literate thinker like Descartes strives after the ideal of clarity and distinctness, while the ideal of an auditory thinker like Hugh St. Victor is harmony and union.

The thought processes in the mind untouched by literacy have a more situation bound, immediate, and synthetic quality. In the 1930's, A.R. Luria (1976) conducted extensive fieldwork with illiterate people in Uzbekistan and Kirghizia and documented the changes in cognition that occur with literacy. Here are some key insights gained from Luria's study as they pertain to the psychology of oral people.

1. The thinking of oral people was concrete/situational rather than abstract/categorical; they did not fit their thinking into purely logical forms, which they seemed to have found unpractical and uninteresting, but they preferred the canniness of thinking that is required to solve riddles. Intelligence is not assessed according to textbook quizzes, but is revealed in how well a person functions in their situated operational context.
2. The participants refused to give definitions or comprehensive descriptions of things because situational events are obvious, and because a description or definition would miss many essential (non-visual) experiential aspects of things.
3. Luria's illiterate participants did not engage in self-analysis. When one 36 year old peasant from the village of Yardan was asked what sort of person he was, he responded, "What can I say about my own heart?.... How can I talk about my character? Ask others; they can tell you about me. I myself can't say anything" (p. 149).

As Western, literate people, we forget that our thought structure has been profoundly shaped by the operations of logic which were instituted with Greek philosophy and literacy, and which were lost for a millennium and re-discovered in the late middle ages and Renaissance. Formal logic, abstract thinking, and self-reflexivity require a literate mind.

*The Psychodynamics of Literacy*

In the years after Hugh St. Victor's death a new technology of text-production took over. The late 12th century invented (for the Western world) page lay-out, chapter division, the consistent numbering of chapter and verse, indices, tables of content, introductions, library inventories and concordances. Illich points out that this change in the technology of textuality fostered a change in the way reality is conceived. It created a new kind of reader, "one who wants to acquire in a few years of study a new kind of acquaintance with a larger number of authors than a meditating monk could have perused in a lifetime" (Illich, 1996, p. 96). The new kind of reader and writer looked at the page and experienced the exteriorization of a *cogitatio*, a thought structure, a thought outline of reasons.

The new relationship between text and mind, the ability to conceive of the written word as an abstract and inaudible record of thought, was the foundation for the print culture which began with Gutenberg. Outwardly, this change manifested itself in a shift from the monastic practice of meditative, auditive contemplation of manuscripts to the production of knowledge in the lecture halls of Europe's bookish universities. Hugh St. Victor and his monastic colleagues in the 12th century planted the seeds for an attitude which began to flourish and permeate cultural life after the introduction of the printing press. Postman (1994) writes:

> But with the printed book another tradition began: the isolated reader and his private eye. Orality became muted, and the reader and his response became separated from a social context. The reader retired within his own mind, and from the sixteenth century to the present what most readers have required of others is their absence, or, if not that, their silence. *In reading, both the writer and reader enter into a conspiracy of sorts against social presence and consciousness. Reading is, in a phrase, an asocial act.* (p. 27, my emphasis)

Literacy has its beginnings not in the dissemination of printed material after Gutenberg, but in the subtle psychological shift of the late 12th century which begins to see the written word as a record of an individual's thought processes and turns intellectual activity into an internal, asocial act.

Textual technology has deep effects on human consciousness. A brief phenomenology of the act of reading silently reveals that textuality brings with it a particular formation of the experiences of body, space, time, and fellow human beings.

1. While oral reading is participatory for anyone in the room, silent reading is an invisible activity of the individual mind. When we watch someone read silently, we cannot tell what the reader is thinking or feeling. The world of her or his experience has become invisible and divorced from the senses and is not self-evident and directly accessible to other participants. Experience is solitary and proceeds through the disembodied symbolic world created by the text. What readers require of other people is their absence (Postman, 1994). What they require of the world of the senses is its vanishing.
2. The body's activity is restricted to the turning of the page, the senses are focused on the eyes which perform the strange synesthetic activity of translating the visual marks of the alphabet into auditory words and then into mental events (Abram, 1996).
3. When we observe ourselves read, we find that we have entered the reality of the text and follow its sequence from line to line, page to page. Alphabetized texts insist on linearity, and they introduce a clear linear temporality into the mind. While reading we often forget the situated time of our surroundings: have I really been reading for two hours?
4. Reading eliminates the sensory, shared context and invites the reader into a symbolic world. From there we return with all kinds of images and thoughts, which we can share with other readers. I remember the compulsion of reading fiction when I was a child, hiding the book under the dinner table or in my desk at school so that I could remain in the compelling virtual reality of the book. There I did not have to deal with problems at home or in school, and yet I could have intense feelings, great adventures, and inspiring philosophical thoughts which were totally out of the ordinary reach of a ten year old child's world. Textual technology creates an invisible symbolic world and a

> mental topology which is made up out of the body of knowledge accumulated in libraries and manipulated by educational institutions. Implicit in this body of knowledge are cultural values and practices which work on the cultural and personal sphere of readers, and are lived out as unconscious power dynamics within a society (Foucault, 1978, 1988). Literate people operate within the topological structures of the symbolic worlds which they have absorbed in the process of their education.

Literacy creates the interior self, or at least is the vehicle for separating the mind from the senses and the surrounding world. Illich and Sanders (1988) point out that there is no continuous self without alphabetization. The "I" in oral cultures lights up in the activity of story telling and is extinguished when the story ends. It can exist only in the act of speaking out loud. In the text, however, the self lives an eternalized and idealized life. Textual technology produces distance and the possibility for self reflection.

> Like other artificial creations and indeed more than any other, it is utterly invaluable and indeed essential for the realization of fuller, interior human potentials. Technologies are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word. Such transformations can be uplifting. Writing heightens consciousness. Alienation from a cultural milieu can be good for us and indeed in many ways essential for full human life. To live and to understand fully, we need not only proximity but also distance. This writing provides for consciousness as nothing else does. (Ong, 1982, p.82)

The self that Ong valorizes here is a creation of Western literacy. It is self-reflexive, interiorized, disincarnate, abstract, cognitive, and it has intensified its capacity and shaped the whole world in its image. As van den Berg has shown, this "inner self" is also often alienated, confused, neurotic, and collectively hovers on the verge of nuclear or ecological suicide.

## *Conclusion*

D'Aubigné, Pascal, and Goethe, the literate precocious children from the time before Rousseau, lived in a literate culture where the children could still assimilate much of the symbolic matrix of their time, especially if they were talented and schooled by their parents and private tutors, as Pascal and Goethe were. In that culture, it was still possible to cross the threshold into adulthood at the age of twelve or thirteen and, like young Goethe, have the run of the town, visit French theaters, and pester his parents to be allowed to study Hebrew with the Talmudic scholars of the Frankfurt ghetto. However, when adults live in a literate culture that is increasingly symbolically complex, the concept of childhood becomes necessary because it designates those who cannot participate fully in adult reality and who have yet to be induced into its system of symbolic knowledge and symbolic commerce. The more complex the society, the longer childhood and adolescence last, as van den Berg has shown.

Formal logical thinking, abstraction from the given environment, and interiority do not come naturally to children. They have to be produced in the long process of learning how to read and write. Children have to be inserted into and shaped by the symbolic matrix of their culture. The interiorized self is created though the process of education. The function of education is not merely to transmit writing technology to the next generation, but to reproduce the symbolic world and self-structures that sustain the contemporary mind. Education and literacy lead to the acquisition of the symbolic, invisible superstructure of Western knowledge and the models of selfhood it produces through philosophy, literature, art, and the dissemination of scientific concepts.

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## *Notes*

[1] This paper is dedicated to Ivan Illich (1926-2002), who felt at home in the 12th century and looked at us from the distance of eight hundred years.