

A GENERATION AT RISK

By Jeff Patton

An article that appeared in the June 1996 issue of the World Ahead magazine.

"Some crimes stun the mind, others sear the soul. In Richmond, California... townspeople were agonizing over the savage beating of a one-month old baby. Ignacio Bermudez Jr. was dumped from his bassinet, pummeled with fists, kicked and possibly hit with a stick, leaving his skull cracked. His alleged assailants? Twin brothers, age 8, and the suspected ringleader, a boy of 6, who were s of Ignacio's siblings" (Time, "From the Fists of Babes," May 6, 1996).

Was this an isolated, uniquely American aberration? Consider this news from Corby, England, about 90 miles north of London: "Two girls ages 12 and 13 were accused of kicking a 13-year-old girl to death in a fight at a fairground...The slain youth reportedly was trying to stop a fight Monday when she was surrounded by about 30 girls and beaten" (Los Angeles Times, May 2, 1996).A Los Angeles Times editorial, pondering the future of such violent, heartless children, commented, "We can only hope it is not too late to save them—or ourselves" ("When Kids Do the Unspeakable," Apr. 26, 1996).

Mass murders in Scotland and Australia have prompted new calls for more restrictive gun access laws. How effective will those governments be in stemming the rising tide of juvenile violent crime? What has happened to our young people? Why are they becoming our oppressors? What are we doing wrong?

Developing Young, Plastic Minds

A human brain is a human brain, isn't it? Or can it change from one generation to another? Is the thinking mind plastic: "formative; mouldable; modifiable; capable of permanent deformation...pliant; supple"? (Chambers Concise Dictionary; The Oxford Encyclopedic English Dictionary).

Today's teachers—frustrated by their students' declining abilities to listen, read, reason, write or clearly express themselves exclaim, "Kid's brains must be different these days!" Could they be right? Education professionals have clearly noticed the "growing discrepancy between what children were apparently [able] to do and what teachers thought they should be capable of doing. The College Board, which issues the Scholastic Aptitude Test (SAT), has documented a steady decline in verbal and math scores from 1964 to the mid-1980s. Since then math scores have leveled off, but verbal scores are continuing to decline. Teachers of the youngest children, claiming they see more pronounced negative changes every year, warned that we haven't see anything yet!"(Dr. Jane M. Healy, *Endangered Minds*, Simon & Schuster, 1991, p. 15).

Is there a connection between declining academic abilities and rising moral problems among the young?The subtle neurological differences from generation to generation may be difficult to quantitatively measure, but due to research currently available, neuroscientists would agree today that a child's experience—his environment—profoundly molds the supple neural structure of the young, growing brain.

When a baby is born, its brain weighs approximately 330 grams, about one-fourth of an adult's. The infant's brain has billions of neurons, relatively few of which are needed to be "hardwired" into neural circuits performing such "housekeeping" chores as regulating heartbeat, breathing, reflexes or body

temperature. Most of these neurons are like "the Pentium chips in a computer before the factory preloads the software. They are pure and of almost infinite potentials, unprogrammed circuits that might one day compose rap songs and do calculus, erupt in fury and melt in ecstasy. If the neurons are used, they become integrated into the circuitry of the brain by connecting to other neurons; if they are not used, they may die. It is the experiences of childhood, determining which neurons are used, that wire the circuits of the brain as surely as a programmer at a keyboard reconfigures the circuits in a computer " (Newsweek, "Your Child's Brain," Feb. 19, 1996, p. 56).

"Early experiences are so powerful,' says podiatric neurobiologist Harry Chugani of Wayne State University, that 'they can completely change the way a person turns out.' By adulthood the brain is crisscrossed with more than 100 billion neurons, each reaching out to thousands of others so that, all told, the brain has more than 100 trillion connections. It is those connections—more than the number of galaxies in the known universe—that give the brain its unrivaled powers" (p. 56).

It seems that different segments of the brain are "wired" according to a predetermined order—during critical windows of opportune development. Once "wired," neural circuits are only changed with difficulty. We all know that it is hard to teach an old dog new tricks. "The implications of this new understanding are at once promising and disturbing. They suggest that, with the right input at the right time, almost anything is possible. But they also imply, too, that if you miss the window you're playing with a handicap" (p. 56).

The neural circuits regulating muscle-motor control are mostly wired up by a child's fifth birthday. Emotional control, social attachment and vision circuits are primarily linked up by age two. Math and logic functions are set by year four. The brain's language-ability window of prime neural development closes by about age two and one-half for vocabulary. Foreign language and musical abilities are primed for development by age ten.

What to Teach When?

Does this mean society should assign sports coaches to have toddlers run pass patterns, drill three-year-olds with math and language flash cards or push the Winnie-the-Pooh set to practice their piano lessons for endless hours in an effort to create a new Mozart?

Not at all! "External pressure designed to product learning or intelligence violates the fundamental rule: A healthy brain stimulates itself by active interaction with what it finds challenging and interesting in its environment. The environments that we provide for children, the stimuli with which we encourage them to interact, and the ways in which we demonstrate for them the uses of a human mind [our personal example]—these are the means at our command for shaping both their brains and our cultural future" (Healy, pp. 81-82).

We can't cram education into our children in an effort to stuff their brains like so many sausages. But neither should we abdicate our parental responsibilities to nourish and encourage, thinking our kids will pick up what they need from thin air. "What does it mean to 'educate' a 4-month-old? Nothing fancy: blocks, beads, talking to him, playing games such as peek-a-boo" (Newsweek, p.61). Educational experiences must be developmental-appropriate—and active parental interaction is the key.

The issue of educational "readiness" is critical! Why can't babies study arithmetic and elementary school children calculus? The brain wires neural circuits together by axons (output parts of neurons). These axons "gradually develop a coating of a waxy substance called myelin, which insulates the wiring and facilitates rapid and clear transmission."

At birth, only the most primitive systems, such as those needed for sucking, have been coated with myelin. Myelin continues to develop slowly all during childhood and adolescence in a gradual

progression from lower to higher level systems. Its growth corresponds to the ability to use increasingly higher-level mental abilities" (Healy, pp. 66-67). This myelination process continues into a person's twenties, and sometimes even longer. "The schedule of myelination appears to put some boundaries around 'appropriate' forms of learning at any given age...Some of the skill deficits of today's schoolchildren, in fact, may have resulted from academic demands that were wrong either in content or in mode of presentation—for their level of development."

Inappropriate educational methods and goals, and the frustration they cause students, may be one major reason why students drop out of school and drift on the margins of society. But our modern, haphazard and often callous disregard for laying the appropriate neural foundation in the rising generation's brains is really the bottom-line reason why today's children—tomorrow's teenagers—will be the way they are prophesied to be.

Who's Teaching Deficient Thinking?

Dr. Healy writes, "Language shapes culture, language shapes thinking—and language shapes brains...."

"The brain is ravenous for language stimulation in early childhood but becomes increasingly resistant to change when the zero hour of puberty arrives. Severe deprivation of language during early years guarantees lasting neural changes that noticeably affect speech and understanding. More subtle forms of language deprivation do not show up in such dramatic ways, but may ultimately affect abilities to think abstractly [as per religious and moral issues], plan ahead and defer gratification [avoiding illicit sex and drugs], control attention, and perform higher-order analysis and problem-solving—the very skills at issue in American schools today" (p. 86).

Dr. Healy warns, "The brains of today's children are being structured in language patterns antagonistic to the values and goals of formal education. The culprit, which is now invading all levels of the socioeconomic spectrum, is diminished and degraded exposure to the forms of good, meaningful language that enable us to converse with others, with the written word, and with our own minds" (p. 86).

Why is this generation of children at risk? "Too much television is stunting the language development of middleclass children as well as those from deprived inner-city areas, according to a leading speech therapist. Dr. Sally Ward, who is considered the...[United Kingdom's] leading authority on the speech development of young children, believes babies under one year old should not watch television or videos at all. Children of two or three should watch for no more than an hour a day...

"All the evidence showed, said Dr. Ward, that children whose language was below standard at the age of three could be set back for life. They are likely to be educational failures and failures in all sorts of ways. They will go to school with depressed language levels and the whole educational progress is held back" (Manchester Guardian Weekly, "TV Exposure Damages Children's Speech," Jan. 21, 1996).

Is there some connection between children's violence and television viewing? California's Attorney General Dan Lungren said, "Children do not emerge from their mother's womb hating and killing. There's something in our culture. We're making it a badge of courage, a status sign to be involved in violence. It's rampant in our movies and in our television. We're probably more uncivil in the language we use than at any time in our history. Listen to the disparaging, insulting messages...the shock jocks, the rap, the Saturday morning cartoons and even the Internet. We've debased our culture" (Los Angeles Times, May 2, 1996). According to newspaper columnist Georgie Anne

Geyer, "Language tells what a people thinks about itself and its destiny," but "television's abominable grammar has tarnished the beauty of the English language" (Healy, p. 88).

Most estimates note that children and adolescents watch more TV than perhaps any other activity in their lives except sleeping. The average elementary school student watches 25 hours per week, the normal high school student views 28 hours weekly! In fact, the tube is on for an average of 7 hours daily in most American homes. "Kids" shows are the most violent part of television, with 20 to 25 certifiably violent acts per hour-much more than adults see in prime time. Add to that a recent study by the Washington D.C.-based American Psychological Association, which found that kids who've watched violent TV are more likely to commit violent acts, and you have some cause for concern" (Child, "Kids and TV," Oct. 1995, p. 17).

By substituting the vicarious experiences of the violent, visual media for the real experiences of one-on-one interaction with concerned and caring parents, we are undermining the next generation's ability to have the language skills, problem-solving abilities, patient persistence and proper role models required for moral decision-making. Speaking for teachers everywhere, Dr. Healy writes, "Our job is getting increasingly difficult, however, because we seem to be standing in the way of an avalanche of brains that are misfitted to our educational objectives. A teacher can easily become engulfed trying to reconcile administrators' demands for 'achievement' with today's language and attention patterns. Unless the adult community decides to help us wrap these growing brains in the mental garments of language, reflection, and thought, I fear we will continue to see increasing numbers of children categorised 'educationally sick'" (Healy, p.150).

An Effective Solution

The solution is simple, but difficult-challenging all parents to take a long, hard look at the learning environment they are providing for their children. Actually, there is nothing new in this challenge. In fact, the solution to morally and intellectually "sick" kids was discussed about 3,400 years ago!

Just before the Israelites were to cross over the Jordan River to claim their Promised Land, their human leader, Moses, assembled everyone to explain the official moral education policy that all the responsible adults in the community were to adhere to. "Moses convened all Israel, and said to them: Hear, O Israel, the statutes and ordinances that I am addressing to you today; you shall learn them and observe them diligently" (Deut. 5:1 NRSV). This was not passive teaching or boring head knowledge!

God expected the adults of that generation to internalize His instruction and to teach it to their children by active example, oral discussion and the written word. "Keep these words that I am commanding you today in your heart. Recite them to your children and talk about them when you are at home and when you are away, when you lie down and when you rise. Bind them as a sign on your hand, fix them as an emblem on your forehead, and write them on the doorposts of your house and on your gates" (Deut. 6:6-9 NRSV).

When a parent diligently teaches his child the Word of God, the child's brain will receive a foundation of wisdom, both spiritually and intellectually. "The law of the LORD is perfect, reviving the soul; the decrees of the LORD are sure, making wise the simple" (Ps. 19:7 NRSV).

In several scriptures, the Bible points out, whether explicitly or implicitly, how highly valued God considers a parent who teaches His ways to the rising generation. "For I have chosen him [Abraham, the father of the faithful], that he may charge his children and his household after him to keep the way of the LORD by doing righteousness and justice; so that the LORD may bring about for Abraham what he has promised him" (Gen. 18:19 NRSV).

Another prime example is that of the human parents of Jesus of Nazareth, Mary and Joseph. God could have selected anyone He wanted, but He chose Joseph as head of the household because he was a righteous man (Matt. 1:19), meaning he lived by Israel's official moral education policy. Mary, too, was chosen because God was sure she would be a good mother to Jesus (Luke 1:28-38), teaching her baby the fundamental cognitive, emotional and spiritual lessons He would need to learn to fulfill His divine calling. Of course Jesus as a child had one advantage that most people don't have-the Spirit of power, love and a sound mind from conception (cf. 2 Tim. 1:7; Luke 1:35)! Joseph and Mary patiently took the time to talk with and teach Jesus.

By age 12, Jesus' thinking was deep and His reasoning was clear. He could express Himself with tact, incisiveness and clarity. How do we know this? "Now every year his parents went to Jerusalem for the festival of the Passover. And when he was twelve years old, they went up as usual for the festival. When the festival was ended and they started to return, the boy Jesus stayed behind in Jerusalem, but his parents did not know it... After three days they found him in the temple, sitting among the teachers, listening to them and asking them questions. And all who heard him were amazed at his understanding and his answers" (Luke 2:41-47 NRSV). Two others of Mary and Joseph's children, James and Jude (cf. Matt. 13:55), also became great spiritual pillars in the Church of God. In fact their writings were considered so important that they were included in the Holy Scriptures.

In her conclusion, Dr. Healy observed, "Human brains are not only capable of acquiring knowledge; they also hold the potential for wisdom. But wisdom has its own curriculum: conversation, thought, imagination, empathy, reflection. Youth who lack these 'basics,' who cannot ponder what they have learned, are poorly equipped to become managers of the human enterprise" (p. 346).

To alter the structuring of a rising generation's minds and thus the destiny of the world, we must restore parents to their critical, rightful role of teaching and nourishing their children in the basics of true spirituality, which is the foundation of moral and ethical values. This will require a profound shift in present social and economic attitudes. In today's world, parents are gambling with their children's minds if they allow electronic influences such as TV to structure those young, plastic, moldable brains. But it is not enough to suppress harmful influences. Parents today must themselves implement God's moral education plan. They must learn it and observe it themselves first. Then they can effectively talk about it at home and when they are away, when they lie down and when they rise up. "The fear of the LORD is the beginning of wisdom; all those who practice it have a good understanding" (Ps. 111: 10 NRSV).