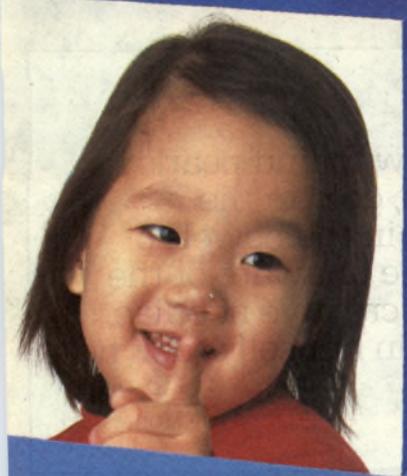
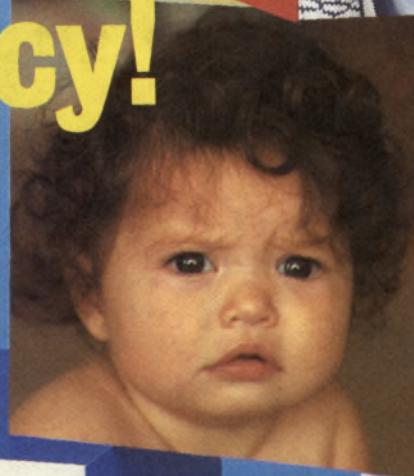
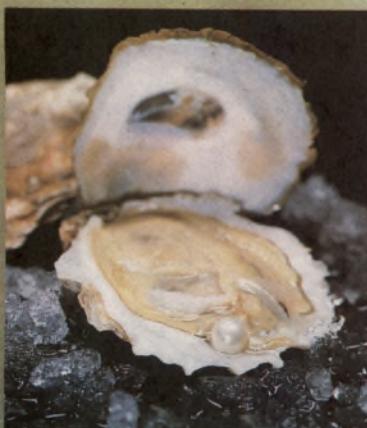


Awake!

May 22, 1987

Train Your Child From Infancy!





“We know how to find pearls in the shells of oysters, gold in the mountains and coal in the bowels of the earth, but we are unaware of the spiritual germs, the creative nebulae, that the child hides in himself when he enters this world.”

—Dr. Maria Montessori

Those Awesome Baby Brains!

THEY are awesome from their beginning. Three weeks after conception, they start out with 125,000 cells and thereafter increase in spurts of 250,000 cells a minute. Each little brain continues its explosive growth until at birth its cells number some 100,000,000,000—as many as there are stars in the Milky Way!

But months before that, while still in the womb, baby's brain has gone into operation. It is registering perceptions from its watery environment. It hears, tastes, senses light, reacts to touch, learns, and remembers. The mother's emotions can affect it. Gentle words or soft music calms it. Angry speech or rock music agitates it. The mother's rhythmic heartbeat soothes it. But if fear sets her heart racing, soon baby's heart beats twice as fast. A distressed mother transmits anxiety to the babe in her womb. A tranquil mother carries a peaceful baby. A joyful mother may make the babe in her womb jump for joy. All of this and more keeps baby's brain busy. Even in the womb it is awesome.

Do additional neurons form after birth? The latest research says no. Unquestionably, however, the neurons do continue to grow dramatically in size, while making trillions

of new connections with one another. Baby's brain at birth is only one quarter as big as an adult's, but it triples in size during its first year. It reaches its adult weight of three pounds (1.4 kg) years before it's a teenager. That doesn't mean it contains the knowledge of an adult. Knowledge is not determined by the brain's weight or the number of its cells. Rather, it seems to be related to the number of connections, called synapses, that are made between the neurons of the brain.

And that number is awesome! A staggering one quadrillion connections may eventually be made—that is one followed by 15 zeros! But only if the brain has been richly stimulated by input from the five or more senses. The environment must stimulate both mental and emotional activity, for that is what makes the fine network of dendrites grow. Dendrites are the tiny rootlike hairs that reach out from the neurons to connect with other neurons.

There is also a time factor involved in making these connections: They are formed much faster in the young than in the old. The saying, "You can't teach an old dog new tricks," is not true. But it is *harder* to teach an old dog new tricks. In the aged, connections between the neurons are slower to form and quicker to fade. The price of their forming is the same as it is in the child—exposure to an enriched, stimulating environment. The mind must continue active! No sinking resignedly into a mental rut! No retirement for the mind!

But the growth that is awesome is in the infant brains. They are sponges soaking up their

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surroundings! In two years a baby learns a complex language, just by being exposed to it. If it hears two languages, it learns them both. If three are spoken, it learns all three. One man taught his small children five languages all at once—Japanese, Italian, German, French, and English. A woman exposed her daughter to several languages, and by the time the child was five, she could speak eight languages fluently. Learning languages usually comes hard for adults, but with babies it just comes naturally.

Language is only one example of abilities genetically programmed into baby brains. Musical and artistic abilities, muscular coordination, the need for meaning and purpose, conscience and moral values, altruism and love, faith and the urge to worship—all depend on specialized systems in the brain. (See Acts 17:27.) In other words, genetically established networks of neurons are specially preprogrammed to be receptive to the development of these and other abilities and potentials.

Understand, however, that at birth these are only potentials, capacities, predispositions. There must be input to make them flower. They must be exposed to the appropriate experiences or environments or studies to become realities. And there is also a correct timetable for such exposures to be most effective, especially in the case of infants.

But when the surroundings are right and the timing is correct, amazing things happen. Not only are languages learned but musical instruments are played, athletic abilities are fostered, consciences are trained, love is absorbed, and a foundation for true worship is laid down. All of this and much, much more, as baby brains are sown with good seed and watered with parental love.

In 1972 Dr. Glenn Doman, director of the Institutes for the Achievement of Human Potential, founded the National Institute for Early Education. It has since become one of the largest educational organizations in the world.

"The world could be full of intellectual giants like Einstein, Shakespeare, Beethoven and Leonardo da Vinci if we taught babies instead of children." —Dr. Glenn Doman, director of The Institutes for the Achievement of Human Potential.

"No child is thus born a genius, and none is born a fool. All depends on the stimulation of the brain cells during the crucial years. These years are the years from birth to three. Kindergarten is too late."

—Masaru Ibuka, author of the book *Kindergarten Is Too Late!*

THE awesome potential of baby brains presents a decision for parents. When do you start special training? What do you teach them? How much? How fast? Some re-

The Push for Genius

sults have been spectacular: small children two to five years of age reading, writing, speaking two or more languages, playing classical music on violin and piano, riding horses, swimming, doing gymnastics.

In most instances the target is the mental rather than the physical. One two-year-old counts to 100, adds accurately, has a vocabulary of 2,000 words, reads 5-word sentences, and has developed perfect pitch. A three-year-old names parts of the cell as they are pointed out to him on a chart: mitochondria, endoplasmic reticulum, Golgi bodies, centrioles, vacuoles, chromosomes, and so on. Another three-year-old plays the violin. A four-year-old translates Japanese and French into English.



**Don't push.
Suzuki's formula:
"Two minutes
with joy five
times a day"**



One instructor who teaches mathematics to small children claims: "If I dropped 59 pennies on the floor, our kids could tell you right away that there were 59 and not 58."

While some are enthusiastic about such intensive training, others have reservations about it. A cross section of the reactions of professionals in the field follows:

"On the whole the evidence is not very favorable to starting children on academic skills at an early age. There is ample evidence that it can be done. The issue, however, is not whether it can be done but rather what are the effects, immediate as well as long-term."

"It is a theory that turns children into little computers, it gives them no breathing room."

"Children learn by taking the initiative and exploring their environment on their own. We might be interfering [by pushing mental development] with some other development that's going on [such as emotional development and social skills]."

"My message is, beware of equating brightness with good development. Intellectual superiority is very frequently obtained at the expense of progress in other areas of equal or even greater importance."

"This is not a healthy parent-child relationship. It's giving children the message 'I love you because you're smart.'"

Undoubtedly there are some parents pushing their children, trying to turn them into prodigies or geniuses. In such cases parental ego and pride have taken over. Children are used as showpieces and the parents are basking in the reflected glory. This does not seem to be the motive, however, of some of the leaders in this field of early learning.

Glen Doman, quoted at the beginning of this article, is against the thought of pro-

ducing superbabies. His aim: "To give all parents the knowledge to make their babies highly intelligent, extremely capable, and delightful children." Learning should be varied and fun for babies. They should be rounded out, mentally, physically, emotionally. Doman is against testing. "Testing is the opposite of learning. It is full of stress. To teach a child is to give him a delightful gift. To test him is to demand payment—in advance."

Masaru Ibuka, also quoted at the outset, said when asked if early training produces geniuses: "The only purpose of early development is to educate a child to attain a flexible mind and a healthy body and to be bright and gentle."

Shinichi Suzuki, famous for his success with training children in the violin, says: "This phrase 'Talent Education' applies not only to knowledge or technical skill but also to morality, building of character, and appreciating beauty. We know that these are human attributes acquired by education and environment. Thus our movement is not concerned with raising so-called prodigies, nor does it intend to emphasize just 'early development.' We must express it as a 'total human education.'"

Suzuki sees forcing practice as both ineffective and undesirable. When asked how long children should practice, he never sets down a rigid schedule. "It's better to practice five times a day for two minutes with preparation and good attention," he says, "than it is to stick with them for half an hour when they are balking." His formula is: "Two minutes with joy five times a day."

What, then, is a proper balance in the use of early learning for your small child? The following article offers some guidelines for consideration.

"The period of infancy is undoubtedly the richest. It should be utilized by education in every possible and conceivable way. The waste of this period of life can never be compensated. Instead of ignoring the early years, it is our duty to cultivate them with the utmost care."—Dr. Alexis Carrel.

Train Your Child in the Right Way

—And Do It From Infancy!

THERE is a need to program both mind and heart. Men may be awed by the dazzling achievements of the mind, but God looks at the heart. Knowledge in the head tends to puff up; it is love in the heart that builds up. Bright minds need loving hearts, "for out of the abundance of the heart the mouth speaks." Out of this figurative heart also come acts good and bad. (Matthew 12:34, 35; 15:19; 1 Samuel 16:7; 1 Corinthians 8:1) So while it is important to stimulate children's minds, it is even more important to instill love into their hearts.

There is a built-in starter for this at birth. It is called bonding. The mother holds, cuddles, strokes, and talks cooingly to her baby. Baby, in turn, looks intently at its mother. Bonding takes place, maternal instincts are stirred, and baby feels secure. Some authorities believe that "there is a sensitive period in the first few minutes and hours after the infant's birth which is optimal for infant-parent attachment."

A good beginning, but only a beginning. The infant is helpless, de-

pendent primarily on its mother for its immediate needs—both physical and emotional. Without food the baby starves; it can also starve emotionally. Cuddling, hugging, rocking, playing, loving—all stimulate the development of the brain. This stimulation has been likened to a nutrient for the brain. Without it the brain is impoverished and stunted for life. And because of this neglect it can also become hostile, delinquent, and violent. Mothering is a priority for the child and for society—more important than any worldly career!



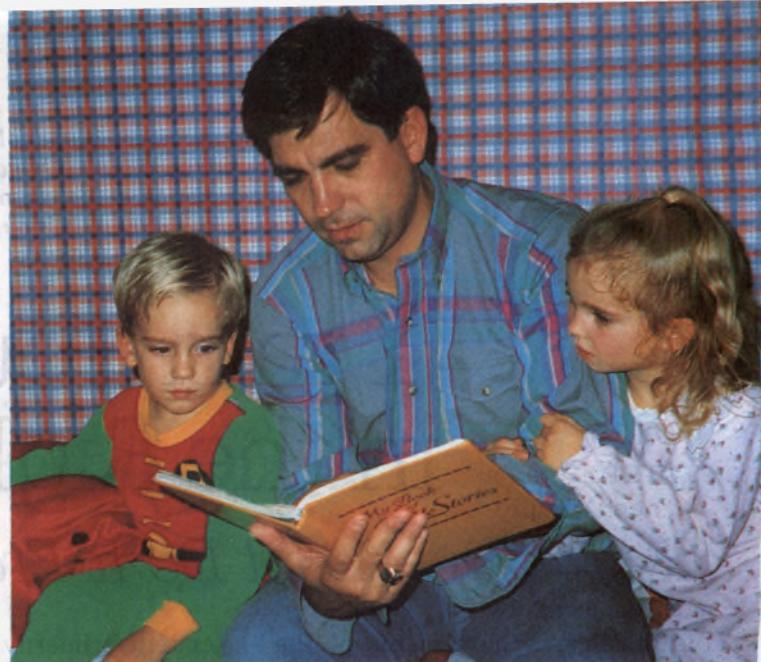
The Father's Role

The father is not to be excluded. If he is present at birth, the father-infant bond will begin. As the weeks and months pass, the influence of his role expands rapidly, as is shown by Dr. T. Berry Brazelton, a professional in the field of child development.

"Every child needs a mother and a father," he says, "and every father can make a difference. For a baby, having an active, involved father is not the same as simply having more mothering." He cites a report that showed the difference in the ways mothers and fathers handle children. "The mothers tended to be gentle and low-keyed with their babies. Fathers, on the other hand, were more playful, tickling and poking their babies more than the mothers did."

But fathers give children more than just fun. "Where there is an active father," he says, "the child grows up to be more successful at school, to have a better sense of humor and to get along better with other kids. He believes more in himself and is better motivated to learn. By the time he is six or seven, the child's IQ will be higher."

Jehovah God orders a



close teaching relationship between father and son: "These words that I am commanding you today must prove to be on your heart; and you must inculcate them in your son and speak of them when you sit in your house and when you walk on the road and when you lie down and when you get up." (Deuteronomy 6:6, 7) No beginning generation gap here!

Training From Infancy

There are stages or phases in the development of infants through the years from birth to six years: muscular coordination, speech skills, emotional qualities, memory faculties, thinking abilities, conscience, and others. When the infant brain is growing rapidly and these stages arrive

in their turn, that is the opportune time for training in these different abilities.

That is when the infant brain absorbs these abilities or qualities as a sponge soaks up water. Loved, it learns to love. Talked to and read to, it learns both to talk and to read. Put on skis, it becomes an expert skier. Exposed to uprightness, it absorbs right principles. If these favorable learning stages pass without proper input, these qualities and abilities will be more difficult to acquire later on.

The Bible recognizes this, so it admonishes parents: "Train up a boy according to the way for him; even when he grows old he will not turn aside from it." (Proverbs 22:6) The Keil-Delitzsch commentary renders it: "Give to the child instruction conformably to His way." The Hebrew word translated "train" also means "initiate" and here indicates the initiating of the first instruction of the infant. Give it according to the child's way, conformable to his way, according to the stages of his development that he is passing through. That is the appropriate time for him to absorb it easily, and what he learns during these formative years is likely to remain with him.

This is also the opinion of most students of human development: "Nowhere in child-development research have we demonstrated a strong capacity to alter early personality patterns, or early social attitudes." They admit it can happen, but "more often than not, remediation will not be achieved." Many exceptions occur, however, through the power of God's truth to effect change.—Ephesians 4:22, 24; Colossians 3:9, 10.

Language is a good example of training given at the right time. Babies are genetically programmed for speech, but for such built-in brain circuitry to function at top

efficiency, the infant must be exposed to speech sounds at the right stage of development. Growth in the speech centers explodes between 6 and 12 months if adults talk to the infant often. Between 12 and 18 months this growth accelerates as the infant grasps that words have meanings.

He is learning words before he can speak them. During the second year of life, this receptive, or passive, vocabulary may go from a few words to several hundred. The apostle Paul reminded Timothy that "from infancy you have known the holy writings." (2 Timothy 3:15) The literal meaning of the word "infancy" is "nonspeaker." Very likely Timothy had the Holy Scriptures read to him while he was still an infant, and thus he knew many Bible words before he could speak them.

The point is, there are specific times in the development of the child at which certain things can be learned easily, almost by absorption. If those times pass without the needed stimulation, however, abilities will not be fully developed. If, for example, children do not hear any speech at all until years later, they will then learn it very slowly and very laboriously, and usually never well.

Read to Your Child From Babyhood

When do you begin? From the beginning. Read to your newborn. 'But he won't understand!' When did you start talking to him? 'Why, right away, of course.' Did he understand what you were saying? 'Well, no, but . . .' Then why not read to him?

With the infant in your lap, your arm around him, holding him close, he feels secure, loved. Your reading to him is a pleasant experience. It makes an impression. He associates a feeling of joy with reading. Babies are imitative, and parents are role models. He wants to copy you. He



wants to read. He plays that he is reading. Later he experiences the joys of reading.

Because of this comes another big benefit—he usually becomes no television addict. He does not sit glassy-eyed watching thousands of stabbings, shootings, murders, rapes, fornications, and adulteries. He can turn the TV off; he can open a book and read. Quite an accomplishment in these days of illiteracy and TV addiction!

It Takes Time to Love a Child

Of course, it takes time to read to children. And it takes time to play with your baby, to play pat-a-cake and peekaboo, to watch it as it explores, initiates actions, seeks out novelty, satisfies curiosity, stimulates creativity. Parenting takes time. And you had better start while your children are babies. That's often when generation gaps start; they seldom wait till the teens. Robert J. Keeshan, broadcaster to children as Captain Kangaroo, tells how it can happen:

"A small child waits, thumb in mouth, doll in hand, with some impatience, the arrival home of a parent. She wishes to relate some small sandbox experience. She is excited to share the thrill she has known that day. The time comes, the parent arrives. Beaten down by the stresses of the work-

place the parent so often says to the child, 'Not now, honey. I'm busy, go watch television.' The most often spoken words in many American households, 'I'm busy, go watch television.' If not now, when? 'Later.' But later rarely comes . . .

"Years go by and the child grows. We give her toys and clothes. We give her *designer clothes* and a stereo but we do not give her what she wants most, our time. She's fourteen, her eyes are glassy, she's into something. 'Honey, what's happening? Talk to me, talk to me.' Too late. Too late. Love has passed us by. . . .

"When we say to a child, 'Not now, later.' When we say, 'Go watch TV.' When we say, 'Don't ask so many questions.' When we fail to give our young people the one thing they require of us, our time. When we fail to love a child. We are not uncaring. We are simply too busy to love a child."

It's true, loving your child takes time. Not just time to feed its body with food and put clothes on its back but time to fill its heart with love. Not love weighed, measured, and rationed out but an overflowing and "irrational love," as Burton L. White, author of *The First Three Years of Life*, calls it. He said: "It is very unwise for working parents to transfer the primary child-

rearing function to somebody else, especially to center-based care. Now, I've had a lot of tomatoes thrown at me because of that statement, but my concern is what is best for babies." He is viewing this as "what is best for babies," yet realizing this ideal is not always possible economically where one or even both parents must work.

Discipline—A Touchy Subject!

A lot of tomatoes are also thrown at the Bible because of its counsel on discipline. "The one holding back his rod is hating his son, but the one loving him is he that does look for him with discipline." (Proverbs 13:24) On this verse the *New International Version Study Bible* footnote says: "rod. Probably a figure of speech for discipline of any kind." *Vine's Expository Dictionary of Old and New Testament Words* defines "rod" as a "sceptre, as an emblem of rule."

Parental rule may involve spanking, but more often it need not. According to 2 Timothy 2:24, 25, Christians are to be "gentle toward all, . . . instructing with mildness." The word "instructing" here is translated from the Greek word for discipline. Discipline is to be given with regard for children's feelings: "And you, fathers, do not be irritating your children, but go on bringing them up in the discipline and mental-regulating of Jehovah."—Ephesians 6:4.

Psychologists championing permissiveness say if you spank your child you hate him. Not true. Permissiveness is hateful. It has loosed a flood of juvenile delinquency and criminality throughout the earth and caused anguish to millions of parents. It is as Proverbs 29:15 says: "A boy let on the loose will be causing his mother shame." Under the heading "Strict vs. permissive parents," Dr. Joyce Brothers says:

"A recent study of almost 2,000 fifth and sixth graders—some of whom had been

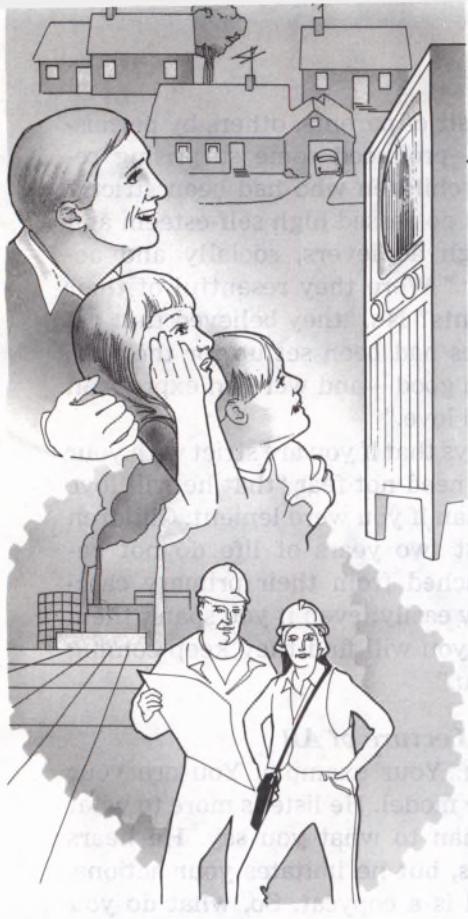
reared by strict parents, others by permissive ones—produced some surprising results. The children who had been strictly disciplined possessed high self-esteem and [were] high achievers, socially and academically." Were they resentful of their strict parents? No, "they believed that parental rules had been set up for the children's own good—and were an expression of parental love."

White says that if you are strict with your child, you need not fear "that he will love you less than if you were lenient. Children in the first two years of life do not become detached from their primary caretakers very easily; even if you spank them regularly, you will find they keep coming back to you."

The Best Lecture of All

It is you. Your example. You are your child's role model. He listens more to what you are than to what you say. He hears your words, but he imitates your actions. Your child is a copycat. So, what do you want him to be? Loving, kind, generous, studious, intelligent, industrious, a disciple of Jesus, a worshiper of Jehovah? Whatever it is, be that yourself.

Hence, train your child from infancy, when its brain is growing fast, soaking up information and feelings for mind and heart. But if those crucial formative years are past and the godly personality has not been instilled in your child, then what? Do not despair. Change can still happen and is happening for millions, both young *and old*, by God's power. "Strip off the old personality with its practices," God's Word says, "and clothe yourselves with the new personality, which through accurate knowledge is being made new according to the image of the One who created it."—Colossians 3:9, 10.



THE WORLD SINCE 1914

Part 6: 1946-1959

Deceptive Prosperity Amid a Peace That Was Not

ample, "most modern historians trace the current East-West division of Europe to decisions reached among the Big Three at [the] Tehran [Conference at the end of 1943]," says the Canadian magazine *Maclean's*. It goes on to point out, however, that the "Yalta [Conference held in February 1945] became best-known among many historians . . . as the meeting at which Stalin outwitted his Western counterparts and stole an empire. . . . Within weeks Stalin's troops had consolidated and extended their grip on Eastern Europe. . . . The hot war was ending, but the Cold War had just begun."

Cold War? Yes. This is the term Bernard Baruch, U.S. presidential adviser, used in 1947 to describe the rivalry between the United States and the Soviet Union. It was a Cold War being fought on political, economic, and propaganda fronts.

At war's end the Allies divided Germany into four occupational zones. The French, the British, and the Americans took over the southern and western parts of the country, the Soviets the eastern part. Thus two national blocs came into being, the one democratic, the other communistic. Ever since, they have been trading icy stares across an invisible iron curtain.

Berlin was also divided into four sectors. Since the former German capital was embedded within the Soviet occupation zone, supplies destined for its British, French, and American sectors had to pass through the Soviet zone. This caused problems, and in mid-1948 the Soviets blockaded all ground accesses

TO DAY'S world, whether we like it or not, is a product of Hitler," claims literary prizewinner and journalist Sebastian Haffner. He explains: "Without Hitler no division of Germany and Europe; without Hitler no Americans and Russians in Berlin; without Hitler no Israel; without Hitler no decolonization, at least not at such a swift pace, no Asiatic, Arabic and Black African emancipation and no European decline."

Of course, other world leaders of the day also did things of great consequence. For ex-

from Berlin to the West. The Western powers responded by flying in all their needed food and fuel supplies. Until ended some 11 months later, the Berlin blockade and the airlift kept Cold War tensions high.

"Almost overnight," writes Professor Alfred Grosser of the University of Paris, "Berlin transformed its image from a symbol of Prussian militarism and Hitler dictatorship into a symbol of freedom." Today, Berlin is still a popular symbol, and politicians of both East and West periodically use it as a pretext for fanning Cold War flames.

Five days before the end of World War II, the Soviet Union declared war on Japan and invaded Japanese-occupied Korea at its northern tip. When Japan capitulated, the Allies agreed that Japanese troops north of the 38th parallel should surrender to the Soviets and those south of this line to the Americans. In 1950 this unnatural division of the country led to war. Before it was over, almost 20 nations were militarily involved, and over 40 more provided military equipment or supplies. On July 27, 1953, a cease-fire was finally put into effect after hundreds of thousands of people had died. For what? Today, over 30 years later, no final solution to the Korean problem has been found. They call this separation the Bamboo Curtain.

The prophet Daniel foresaw that such a confrontation would take place between two symbolic kings. The Cold War has given the two superpower-kings of our day ample opportunity to confer with each other, in continuing their longtime policy of speaking "at one table a lie." Thus they have pursued national interests, while at the same time actively engaging "in a pushing" against each other for personal advantage.—Daniel 11:27-45.

Unruly "Babies Satisfactorily Born"

When the atom bomb was first successfully exploded in New Mexico, U.S. president Truman was sent a secret message reading: "Babies satisfactorily born." But how unruly and demanding these "babies" have turned out to be! They have thrust nations, large and small, into an unprecedented worldwide military buildup, forcing them to spend money that they might better have used to feed and educate their needy. They have fostered the dangerous policy of preserving peace by a balance of terror. They have given the United Nations organization due cause to consider every national or international skirmish, however minor, a potential nuclear holocaust. They have necessitated the setting up of new peace-keeping organizations like NATO (North Atlantic Treaty Organization) in 1949 and the Warsaw Pact in 1955.

As the number of atomic "babies" and their parent nations has grown, so also has the danger of a global nuclear war, caused either by accident or by design. They have kept the world trembling in "fear and expectation of the things coming upon the inhabited earth."—Luke 21:26.

So if the shot that began the U.S. War of Independence in 1775 was "the shot heard round the world," as poet Ralph Waldo Emerson called it, then the atom-bomb blast that ended World War II in 1945 was most surely 'the blast heard round the world.'

The World Book Encyclopedia tells us about some other unruly "babies" that were "satisfactorily born" during the postwar era. Referring to "The Rise of New Nations," it explains: "One by one, the vast European empires collapsed after World War II. Great Britain, France, Belgium, The Netherlands, and the other large

Other Items That Made the News

- 1946—Ho Chi Minh declares war of liberation in Vietnam
- 1947—Dead Sea Scrolls, including oldest extant Bible manuscripts, discovered
- 1948—Mohandas Gandhi assassinated
- 1949—Peoples Liberation Army completes conquest of mainland China; non-Communist Nationalist government withdraws to island of Taiwan
- 1950—Riots against apartheid in South Africa
- 1952—United States explodes first hydrogen bomb
- 1954—U.S. Supreme Court declares racial segregation in schools unconstitutional
- 1957—Soviets send first earth satellite, Sputnik I, into orbit
- 1958—European Economic Community (Common Market) begins operations
- 1959—Soviet rocket transmits pictures of the moon back to earth

colonial powers had been weakened by their losses during the war. They no longer could hold their colonies by force." Among the first colonies to gain independence were Indonesia, the Philippines, Pakistan, India, Ceylon (now Sri Lanka), Israel, Libya, Tunisia, and Ghana.

The trend toward political independence has continued to this very day and has resulted in the birth of at least a hundred new nations since 1945.

Colonialism had its drawbacks, but what has replaced it is not necessarily better. Syndicated columnist Georgie Anne Geyer notes: "As the colonial empires dissolved, many of the new nations began what was to be one long period of slow-motion collapse, often marked by internal warfare." Thus has the evidence grown that man cannot rule himself suc-

cessfully.—Ecclesiastes 8:9; Jeremiah 10:23.

Prosperity—But Costly and Deceptive

In 1945 the inhabitants of war-ravaged Europe and Asia were in difficulties. For humanitarian reasons, but also driven by self-interest, the Allies devised the European Recovery Program. It was an agency that offered financial help in rebuilding Europe's bombed-out industries. Popularly known as the Marshall Plan, named after the U.S. secretary of state who originated the idea, this do-it-yourself program, while costly, was effective.

Economic and industrial recovery was remarkable. Modern plants full of up-to-date machinery enabled the defeated nations to catch up to, and in some cases to overtake, their victorious neighbors, who were often forced to make do with antiquated plants and equipment. During the 1950's the so-called German economic miracle was in full swing, and by the end of the decade, Japan had embarked upon a building program that would enable it to conquer much of the world commercially.

The victors, meanwhile, were also trying to get their domestic and economic policies back to normal. Construction of homes and production of domestic goods were severely curtailed during the war, when everything was geared to war production. There was now a tremendous market for items people had long done without. This meant work for all; at least for the moment, unemployment was no problem. The world was now headed toward a period of prosperity not seen since

Postwar prosperity brought fine homes and new cars to many families

before the Great Depression.

But prosperity had its price. More and more mothers took up secular work outside the home, sometimes neglecting children in doing so. Rising living standards allowed for more recreation, but it was not always wholesome. TV watching began replacing family conversation. A breakdown in family life led to an increase in divorce. This trend was later partially offset by the growing tendency of single people to live together without being married. Both trends implied a growing tendency to stress personal interests at the expense of others. Spiritual and moral values, already sorely disrupted by the war, were now being further eroded.

Genuine Peace and Prosperity

As a whole, the world's religious organizations had seen nothing wrong in sending their members out to slaughter fellow humans during World War II. So now they saw nothing wrong in lending moral and physical support to the Cold War and to political uprisings and so-called wars of liberation. But there was one notable exception.

Jehovah's Witnesses preserved Christian neutrality during World War II and thereafter. Rebounding from Hitler's attempts to destroy them, the number of active Witnesses in Germany increased from fewer than 9,000 in 1946 to over 52,000 within five years. Between 1945 and 1959, they



H. Armstrong Roberts

increased throughout the world from 141,606 Witnesses in 68 countries to 871,737 in 175 countries. While members of many other religions were increasingly at war with one another over political and social issues, as well as unsettled by a drop in church membership, Jehovah's Witnesses, in a spiritual way, were enjoying real peace and prosperity.

This was apparent at their 1958 Divine Will International Assembly in New York City, where the peak attendance at one session was over 250,000. A featured speaker said: "It is the flourishing of the spiritual paradise that explains the overflowing happiness of Jehovah's witnesses . . . This spiritual paradise reflects the glory of God and testifies to the establishment of his kingdom."

The peace that followed World War II, actually a peace that was not, as well as the purely materialistic prosperity it promoted, pointed up this indisputable fact: Genuine peace and prosperity can come only through God's established Kingdom. During "The 1960's—A Period of Turbulent Protest," this would become even more obvious. Read about it in our next issue.

Winter Showers Bring Desert Flowers

*—And Also
Refill Plant
Reservoirs*

SOME desert seeds seem to measure rainfall. They will not sprout until a half inch (1.3 cm) or more falls. They can be thoroughly soaked with less, but they will not germinate. They also seem to know the direction from which the water comes. If enough comes from above, they will sprout; if it soaks up from below, they refuse to do so. They're not just being fussy; they're very wise. These wise seeds belong to the flowering annuals that in springtime may carpet the desert with dazzling colors.

But how do they measure



Golden poppies, blue lupines, and giant saguaros in Arizona

rainfall? At times certain salts are in the desert soil, and the seeds refuse to sprout in their presence. The salts are soluble in water. Light showers may soak the seeds but won't leach out the salts. It takes frequent and heavy showers to dissolve the salts and carry them deeper into the soil, away from the seeds. And the rain must soak into the soil from above; water soaking up from below may dissolve the salts but won't carry them away.

Sometimes the problem is not with the soil but with the

seeds. In the covering of some desert seeds, there are water-soluble chemicals that inhibit germination. A light rain may soak the seeds, but it takes several heavy rainfalls to remove all the troublesome chemicals. Some inhibiting substances in the seed coverings are not removed even by heavy rain; it takes the action of certain bacteria. But these bacteria only do their job when there is prolonged moisture in the seed. So again it is lots of rain that is required.

Why are the seeds of desert flowers so persnickety?



Cow's tongue cactus



Hedgehog cactus

Barrel cactus



about all of this? If they sprout and start to grow at the first light shower, their roots will find no water deeper down. The hot desert sun will scorch the plants before they flower and bear seed. But if the seeds are made to wait until the ground is soaked deep down, their roots will find moisture even when the surface soil is dry.

So it is for survival that the salts in the soil make the seeds wait until heavy rainfall has leached them out. The germination inhibitors in the seed coverings perform the same service. Other substances in the seed coatings prevent sprouting, but they are removed by bacteria that don't do their work until rain has soaked the seeds. By these various means, seeds wait for repeated heavy rainfalls before germinating.

When copious winter showers do not come, neither do the deserts blossom like the rose. But when they do, springtime in the desert bursts forth with pageants of color that bring oohs and ahs from the flocks of visitors that come from miles around. And should not these admiring throngs show gratitude to the Creator, who built this wisdom into these seeds and who sends the winter showers that bring forth the desert flowers?

In all of this, there is a moral for us. When the seedlings of these desert annuals come

up, there may be thousands per square yard. They do not kill one another off—none of this ruthless evolutionary "survival of the fittest" business! They adapt. Each one grows smaller, demanding less, sharing space and water. In one small area, 3,000 plants were found, belonging to 10 different species. Each one had at least one flower and produced at least one seed. If people are so much wiser than flowers, why can't the different races live together and share?

Plants That Maintain Reservoirs

Then there are the succulent cacti that survive the desert's long dry spells by storing up water on the rare rainy days. Some use underground containers, while others hoard it in thick stems. For these green stems to absorb carbon dioxide and perform photosynthesis, the stomata, or breathing holes, must be kept open. Yet this invites disaster, as precious water then escapes in the form of water vapor. The loss is minimized by the stomata's remaining closed during the daytime heat, opening up only during the cool nights. Moreover, in the desert cacti, the stomata are sunk beneath the stem surface in depressions, which further limits water loss.

The sparse desert rainfall

seldom penetrates very far below the surface, so cacti roots are usually shallow and spread out over a big area to suck up as much water as possible. As their internal reservoirs fill up, the plants swell, and as the water is used up during dry spells, they shrivel. In many such plants, leaves have been reduced to spines, which also ward off predators that come to eat or drink.

The most striking of this desert community is the giant saguaro. It reaches an age of 200 years, a height of 50 feet (15 m), a weight of 10 tons, and is four fifths water. Its bulk presents rela-

tively little evaporating surface and is fluted like an accordion—allowing it to expand or shrink as water is added or used up. This pleated surface also eliminates large flat areas exposed to the direct rays of the sun and actually shades itself.

Finally, a glorious gift these desert cacti bring to their surroundings each year is a profusion of brilliantly colored flowers. So just as do the poppies and other springtime annuals lured into glorious displays by heavy winter rains, every year these water-hoarding perennials contribute to the desert's blossoming like the rose.

*Cactus wren on
blooming saguaro*

*Blossoms, usually on the tip,
cover this saguaro*



LIIGHT—that ancient, mysterious symbol of wisdom and intelligence—is now no longer just a symbol. In recent years it has swiftly and quietly

assumed its rightful role and become the actual carrier of all kinds of information. For light to achieve its real potential for transmitting intelligence over very long distances, two developments were needed: (1) a special kind of light and (2) a special kind of light guide.

Recently, by means of a series of exciting new developments, we are now sending incredibly large masses of intelligence of all kinds over great distances and at tremendous speeds using beams of light. Yes, it is now possible to talk, see, and hear with remarkable speed and efficiency, by means of tiny beams of light traveling down hair-like threads of glass. Like gossamer spider-webs, these threads of glass protected in cables, already run between cities in the United States, in Europe, and in Japan. They are now in process of spanning the oceans, going from continent to continent.

How is this possible, since all of us know that light tends to travel in straight lines? What makes it possible for the tiny rays of light to stay in the glass threads as they

Talking and Seeing Through Glass

bend around corners? How do these rays go so far and carry so much information? A special kind of light that makes it all possible—coherent light.

Efficient Coherent Light

The advantage of a ray of coherent light over a ray of ordinary light for the transmission of intelligence can be illustrated by photons of

light traveling down a glass fiber compared to men walking down a road. Let us think of a ray of ordinary light as though it were a crowd of men of all sizes, all walking out of step and interfering with one another as they walk. On the other hand, a ray of coherent light might be compared to soldiers all of the same size, all in even rows, and all walking in step. Walking in step without interference would obviously move more men greater distances with greater efficiency and less loss of energy. So it is with coherent light.

At this point some might say: 'Why has this use of light been so slow in coming? Why has no one thought of it before?' Actually, it is not completely new. At least one person, Alexander Graham Bell, saw the advantage of talking by means of light and published a paper in 1880 entitled "Selenium and the Photophones."

This idea showed great foresight, but without coherent light his invention could have had only limited success. It was not, however, until the 1960's with the development of the LASER (Light Amplification

by Stimulated Emission of Radiation) that the necessary first requirement was met. Bell also lacked the other principal requirement, a highly efficient light guide to transmit the information.

If a coherent beam of light is to

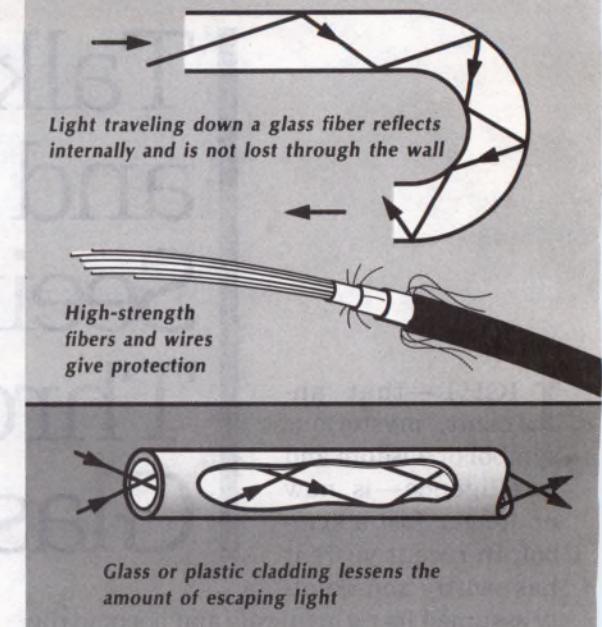
Those Ingenious Glass Light Guides —How Do They Work?

While work was continuing with the development of lasers, others were inventing and developing glass materials of great clarity and ingenious composition that allowed the coherent laser light to travel very long distances. These materials were then drawn down to hairlike fibers.

Many of us may recall seeing illuminated glass fibers used in eye-catching, artistic table decorations. To make these decorations, bunches of glass or plastic fibers are fanned out like flower arrangements and illuminated from the bottom ends. In these displays just ordinary light is usually used for illumination of the fibers. This illustrates, at least, how light can be made to travel down the threads of glass and around bends instead of just going in straight lines as it usually does. In these displays the light travels over very short distances.

To enable the light to travel much greater distances than is required in artistic displays, special coatings of glass or plastic have been devised. These special coatings cause any rays of light that may be tending to escape to bend back into the glass and thus prevent further light loss. There are a number of ingenious variations in composition and construction of these coatings. Nevertheless, these many variations, each in its own way and under its own special conditions, help to increase the distance the light travels.

Although these glass threads, or fibers, have greatly improved our ability to trans-



and distance to travel is to reflect it to reemit and guide the light, it is still necessary to inject the light into the threads at the critical angle or less. We can understand the principle of how this works when we recall that the smooth surface of a lake can act like a mirror. In fact, the trees along the lake can sometimes be seen mirrored on the surface. This mirror effect is possible because the light coming into our eyes is coming from a very low angle. At just this particular angle, called the critical angle, the surface of the water reflects the light like a mirror. In like manner, when the light is injected into the glass threads at the critical angle or less, it is internally reflected inside the fiber, mirrorlike, with very little light escaping.

It is expected that these rays will be able to travel up to 25 miles (40 km) or more down those tiny threads without need to regenerate the light. Future prospects are even more encouraging. According to a recent report, ultralow-loss fibers have been developed "that can transmit data thou-

sands of miles without the need for repeaters."

In order to protect these marvelous conductors of light, it is necessary to place around them layers and wrappings of protective materials. In addition, high-strength fibers and wires, as well as electrical conductors, are often added to form small cables. When they are protected inside cables, these glass fibers provide an efficiency of transmission of information so great that electrical currents traveling through ordinary copper wires can no longer begin to compete. This is especially true for long distances. But how are data, pictures, and human voices carried by this special kind of light over those tiny glass fibers?

How the Tiny Fibers Carry Their Big Loads

Although the special kinds of light rays and the ingenious glass fibers impress us, the way the rays actually carry their enormous loads of intelligence is equally impressive. One basic secret lies in the tremendous speed of light, approximately 186,000 miles per second (300,000 km/sec). The other is the extremely high frequencies of light waves, amounting to billions of cycles per second. Because of these high frequencies, and by coding the light pulses, tremendous amounts of intelligence can be crowded into the rays of light traveling down the tiny fibers. Let us consider one example, talking and hearing with light.

Talking and Hearing With Light

Talking and hearing, as well as seeing, by light involve some of the most complex technology of our day. Let us, however, go through just a few of the steps that take place in talking and hearing with light to

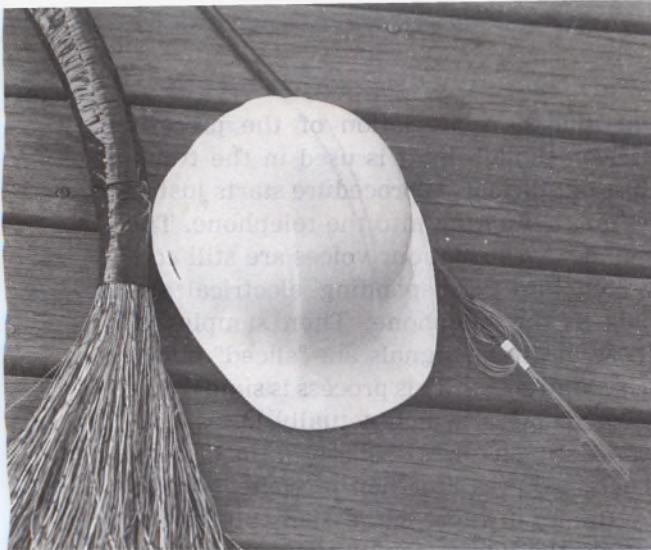
get a little appreciation of the process.

Even though light is used in the transmission, the actual procedure starts just as before, by talking into the telephone. The sound waves from our voices are still converted into corresponding electrical signals in the telephone. Then samples of these electrical signals are "sliced" out at very high speed. This process is similar to a movie camera, which actually takes a series of still pictures, or slices, of the motion. These pictures are then projected, frame by frame, in rapid succession to give the viewer the impression of movement. Similarly, these electrical slices are removed and coded in a multistep process and then converted into light pulses. The coded light pulses then travel down the thread of glass to the receiving end. When they arrive at the receiving end, they are converted back by the reverse process into sound waves in the earpiece of the telephone. What are the present benefits to us? What are the prospects for the future?

Some of the Present Benefits

Just as we have begun to accept and appreciate our present worldwide communications network, a whole new system has appeared. Fiber optics promises to replace multiconductor telephone cables, microwave networks, and even some satellite stations, yet with a host of benefits added.

■ **Communication Without Interference.** One of the most important advantages of fiber-optics transmission for the telephone customer is that it practically eliminates many of the kinds of interference to which we have become accustomed. Lightning, power lines, generators—all have annoyed us with static and noise. Even heavily shielded copper conductors cannot prevent some of these disturbances from coming through.



If your telephone conversation was transmitted part way by satellite, you may have noticed a fraction of a second communication delay or observed atmospheric effects. In the past, echoes may even have been present. Fiber optics tends to eliminate noticeable delays and provides clear, undisturbed reception.

■ **Communication With Security.** Complete security is one of the outstanding advantages of fiber optics. Thus, cross talk is eliminated, and any illegal wire tapping is essentially impossible. No means has yet been devised to tap in on the light rays, at least not without greatly reducing the signal and thus providing a warning.

■ **Great Efficiency.** The fantastic efficiency of information transmission by light can be understood when we consider that thousands of telephone conversations can be carried with just one pair of light fibers. The estimate is that the entire contents of Webster's unabridged dictionary can be sent thousands of miles in six seconds over one single thread of glass.

■ **Minimum Space—Withstands Hostile Environment.** Many places are already benefiting from this new development. Metropolitan regions gain from new, high-

This small fiber-optic cable carries as many or more telephone conversations than this large conventional cable

volume communications with greatly reduced equipment requirements. Whole rooms full of outdated switching equipment can now be replaced with fiber-optic equipment requiring only a small area. Also, remote areas such as the Florida Keys now enjoy noise-free service. The hostile saltwater environment in the Keys and like areas tends to cause electrical shorting and chemical deterioration. However, with fiber optics, there is minimum effect.

Looking Into the Future

The future for the new development appears to be most promising. Already the changeover is proceeding much more rapidly than was predicted by some. It is reported that one of the biggest problems is to select a system that will not be obsolete by the time it is installed.

■ **Voice, Video, and Computers From One Terminal.** *High Technology* magazine in its February 1986 issue reports under "Business Outlook" that "Fiber Optics has quickly become the preferred medium for transmitting voice, data, and video in the U.S.—especially over long distances." The article continues with the statement: "We are starting to deploy a fiber network that will extend into the home. Using one terminal that can handle voice, video, and ... query a database for information." This is opening up opportunities for at least some people to do shopping, banking, and buying of airline tickets, and have certain library privileges from their home. They should even be able to see their friends when they talk on the phone—all with light through those marvelous glass fibers.



How Can I Find Happiness as an Only Child?

IHATE it. I hate it," cried 16-year-old Sue Ann. But Al, two years younger, said: "I love being an only child."

Both, of course, had their reasons. But could it be that Sue Ann was overemphasizing the disadvantages, whereas Al was mainly seeing the advantages? How do you—especially if you are an only child—view the matter? Do you feel like Sue Ann or like Al? Or maybe a little bit like both?

Try to Understand Why

A one-child family is by no means the world standard. But the birthrate in some countries, particularly in North America and Europe, has dropped so low that being an only child will be the lot of millions of children now being born. And in China, which since 1979 has carried on a drastic program of birth control, there are an estimated 35 million families with just one child. While some children may find this situation difficult to accept, Elke, a young woman who grew up as an only child, says that knowing why helped her. "I understood my parents' reasons," she explains, "and I think this is important if an only child is to be happy and satisfied."

The reasons may be social, health related, or of some other personal nature. Or it could simply be a matter of economics. Did

you know, for example, that in Great Britain or the United States the cost of rearing a child to adulthood can run well beyond \$100,000? Multiply this by two, three, or four, and you may understand why some parents say 'one is enough.'

Whatever the reason, an only child need not be unduly upset about his future. A study published in 1954 by educators Cutts and Moseley revealed that an only child apparently does not turn out too differently from others. And more recently, Dr. Alice Loomer, writing in *Parents' Magazine*, said that although being an only child will affect him, "what matters more than the single fact of 'onliness' is how all the conditions of a youngster's life combine to make him the unique person he is."

Obviously you cannot change your situation, so the secret for happiness lies in enjoying the advantages of being an only child, while playing down its disadvantages. Even better, try to benefit from those disadvantages. How?

Turn Negatives Into Positives

LACK OF COMPANIONSHIP: Association with brothers and sisters teaches you that every individual is different and that one must learn to respect the thinking of others. It can also help you at school,



I often miss not having a sister; yet I do have certain advantages

making it easier to relate to other children. But if homegrown association is lacking, then be willing to look for it elsewhere. Otherwise you will be lonely. You could tend to be withdrawn and perhaps end up being a loner. This must be avoided, for as a wise king of old warned: "One isolating himself will seek his own selfish longing; against all practical wisdom he will break forth."—Proverbs 18:1.

Actually, then, you can pick your own "brothers" and "sisters," subject to parental approval, of course. Al sees in this a real advantage, saying: "I look at all my friends who have such bratty brothers and sisters and they all hate each other and fight all the time. What a hassle." Of course,

this is not the situation in all families, but it probably is the case often enough to make a valid point.

Because of having less in-house association, you will have more time for study, meditation, or the development of certain skills. Many an only child has overcome feelings of loneliness or lack of companionship by becoming an avid reader. Thus it is perhaps not without reason that the only child is often viewed as the precocious child, the one more likely to develop a larger vocabulary, the one who will excel academically.

TOO MUCH ATTENTION: "As an only child I had the total attention of my parents," says Thomas, and he considers it an advantage. Of course, excessive parental attention can be a disadvantage, spoiling a child, making him self-centered. Or it can become oppressive. But on the positive side, if you feel your parents have too little time for you—as many children do—think how much worse it would be if you had to share them with several brothers and sisters. In fact, your parents' undivided attention can help you to mature more quickly, to feel at ease around adults, and to be able to converse with grown-ups on their level.

SOCIAL CONNECTIONS: One reason for Sue Ann's lament at being an only child is this: "When you're alone, you got no connections.... It's tough to get dates. You have to go out with your girlfriend's best friend's boyfriend, or whatever.... Brothers is what I wish I had. Older brothers." However, you are wise to wait until you are old enough to marry before dating. And if friendship is what you want, remember that social connections can also be made through

friends. On the other hand, a lack of social contacts with members of the opposite sex during the impressionable teenage years is not necessarily a bad thing. In today's pleasure-mad, oversexed world, it can even be a protection.

Think of Others

As an only child, you may agree with Jay, who said: "It's nice 'cause I don't have to share clothes, the car or anything." It may be nice, but in the long run it will make for greater happiness if you learn to share, even when you do not have to. True, you have no brothers and sisters with whom to share, but you probably have cousins or other relatives. For sure, you have friends. And what is wrong with sharing with your parents?

Peter appreciates the time his parents spent teaching him to work with his hands: "I made many gifts, all sorts of things, anything I could think of," he says, "and this taught me that you can make others happy and thereby make yourself the happiest of all." Yes, the axiom "there is more happiness in giving than there is in receiving" has yet to be disproved.—Acts 20:35.

In Our Next Issue

- *Prayers for Peace
—Who Listens to Them?*
- *"I'm a Truffle Hunter!"*
- *Who Can Silence the
'Cry of Hunger'?*

Develop an eye for the needs of others. Can you offer someone an encouraging word? Can you assist someone in material need? Can you run errands for shut-ins or the elderly? If you are one of Jehovah's Witnesses, can you share Bible knowledge with others or help fellow Christians to attend meetings or to engage in Christian preaching?

Follow Positive Examples

The Bible mentions a young person who "was absolutely the only child." Do you know who this was? Turn to Judges chapter 11, verses 29 to 40, and read about Jephthah's daughter.

Jephthah's daughter was apparently not a lonely child, since the Bible says she had "girl companions." And obviously, she was not a spoiled or self-centered child. When called upon to conform to the requirements of her father's vow, she was willing to put God's interests ahead of natural desires like marriage and motherhood. Many young people today are following her lead.

Take Thorsten, for example, now serving as a full-time minister in a European branch office of the Watch Tower Society. He says: "Had I had brothers and sisters, I probably would not have encountered certain problems. On the other hand, I might never have experienced the many happy hours I was able to spend with my books, and perhaps I would not have developed the deep appreciation for the truth, for the brotherhood, and for the ministry that I now have. I still like to be alone at times. But I am not lonely because I have learned to keep myself busy. I am no longer an only child—at least not entirely so."

You, too, like Jephthah's daughter and like Thorsten, can find happiness as an only child.

Allan Kardec

Pioneer of Spiritism

By "Awake!" correspondent in Brazil

I AM a Kardecist." Time and again Jehovah's Witnesses in Brazil hear these words as they make their house-to-house visits. Many will tell the Witnesses in a friendly way: "I read the gospel according to spiritism. You know—Allan Kardec!" Almost always a cordial and lively discussion ensues.

But who is Allan Kardec? Most English-language encyclopedias have no entry under that name, yet to countless hundreds of thousands he is a pioneer and codifier of spiritism in its modern form. His writings are accepted as expressions of supernatural powers—particularly in Brazil, where his books enjoy a wide distribution.

The *Grande Encyclopédia Delta Larousse* and the *Encyclopédia Mirador Internacional*, two well-known encyclopedias in the Portuguese language, tell us that Allan Kardec is the pseudonym of the French writer Hippolyte Léon Denizard Rivail, who lived from 1804 to 1869. Born in Lyons, at the age of ten he was sent to be educated in Switzerland where he became a pupil of the educational reformer Pestalozzi. The year 1824 found him in Paris, where he dedicated himself to teaching activities and, in time, became a member of France's Royal Academy of Natural Science.

In the year 1854, Rivail was introduced to a popular mid-19th century pastime: attempts to communicate with disembodied spirits. The next year, he witnessed the phenomena of revolving tables and mediumistic writing. He became convinced of the existence of a spirit realm inhabited by the immortal souls of the human dead and of the possibility of communicating with them. Unseen spirit forces wasted no time in making use of him as their instrument.

His "familiar spirit" informed him that in a previous existence, in the time of the Druids, he had lived in Gaul and that his name had then been Allan Kardec. Furthermore, the spirits announced through mediums that "the times fixed by Providence for a universal manifestation had arrived and that, as ministers of God and agents of his will, it [was] their responsibility to instruct and enlighten men, opening up a new era for the regeneration of Humanity."

Deeply impressed by all of this, Rivail set to work to put in order a vast array of mediumistic writings supplied to him by his spiritist friends. He began to attend séances regularly, always prepared with a series of questions that were answered through mediums in a "precise, profound and logical manner." All this material, duly "proofread" by the "Spirit of truth" acting through a medium, was published



Allan Kardec,
used by unseen
spirit forces

in 1857 in his first book *O Livro dos Espíritos* (The Book of Spirits), under the name Allan Kardec.

From the beginning, Rivail made it clear "that the Spirits, being merely the souls of men, have neither supreme knowledge nor supreme wisdom; that their intelligence depends upon the progress they have made and that their opinion is nothing more than personal opinion." Throughout his mediumistic writings, he makes mention of superior and inferior spirits, good and bad spirits, lesser spirits, evil and rebellious spirits, wandering spirits, vulgar spirits, and mendacious spirits. These present themselves to mediums with well-known names such as Socrates, Julius Caesar, Augustine, Charlemagne, George Washington, Mozart, and Napoleon. In his book *What Spiritism Is*, Rivail also admits that some spirits are "liars, fraudulent, hypocrites, evil and vindictive," and capable of uncouth language.

Why, then, should humans bother to study spiritism? Rivail answered: "To

Some spirits are "liars, fraudulent, hypocrites, evil and vindictive," and capable of uncouth language

prove, materially, the existence of the spiritual world." But this was hardly necessary. Thousands of years before Rivail, believers in the Bible have been aware of the existence of such a spiritual realm.

The God that Christians worship is the

Supreme Spirit. Jesus himself said: "God is a Spirit, and those worshiping him must worship with spirit and truth." (John 4:24) Christians who serve this God wholeheartedly experience his influence in their lives and have no doubt at all of his existence. Christians are also aware of the existence of other spirits—Jesus Christ and his holy angels, angels who do the will of God.

According to the publishers of a Portuguese edition of Rivail's book, "the part played by *The Book of Spirits* is that of helping all other religions to consolidate the belief in the immortality of the soul."

But it is impossible for this claim to be correct. The Bible states that the human soul is not immortal. "The living are conscious that they will die; but as for the dead, they are conscious of nothing at all." (Ecclesiastes 9:5) The Bible also contains the stern warning: "The soul that is sinning—it itself will die."—Ezekiel 18:4.

Who, then, were the spirits that Rivail contacted? There is only one possible answer: These spirits must belong to another part of the spirit realm—the demons. This is how the disciple Jude describes the demons: "The angels that did not keep their original position but forsook their own proper dwelling place." (Jude 6) Yes, they are angels who rebelled against God.

Consequently, in the Law God gave to Israel, he strictly forbade the Israelites to have any contacts with mediums such as those that Rivail had. (Leviticus 19:31) The fact that their language may sometimes have been beautiful, expressing noble ideas, changes nothing. The apostle Paul warns: "Satan himself keeps transforming himself into an angel of light."—2 Corinthians 11:14.

From Our Readers

A Scholarly Magazine

The chairman of a literary committee of the Holy Trinity Anglican Church and principal of the college in which I teach described *Awake!* as scholarly and beautiful. He said: "Awake! is investigative, it X-rays, it diagnoses, it analyses, and it mirrors world events as they are." Keep on producing this scholarly and beautiful magazine.

V. N. E., Nigeria

Premarital Sex

As a 19-year-old youth living in La Paz, I happened to obtain a copy of your magazine on "Aids." (April 22, 1986) I was impressed with all the articles, but especially the one "Young People Ask . . . How Can I Say No to Premarital Sex?" As I read that article, I thought about many mistakes that have been made not only by me but by many Bolivian youths, since we live in a society corrupted by violence and sex. I felt compelled to read it to some of my friends. At first they made fun of me, but afterward I know that it made some stop and think, as it had done to me. Keep up your good work of helping young people who are on the wrong road.

R. U. A., Bolivia

Phobias

My heartfelt thanks for the feature articles on "Phobias." (February 8, 1987) I am a 26-year-old single man who has been having attacks of anthropophobia [fear of people] and anxiety neurosis for two years. Although I kept on seeing psychiatrists, I knew very little about my illness, and I suffered every day with anxieties that my trouble may be due to some

personal failure in my life as a Christian. Thanks to your article I have been able to find hope for my life from now on. I now know that I am not alone in suffering this way.

Y. O., Japan

I enjoyed the article "Fenced In by Phobias." How it has helped me to know that someone understands! When I was 13 years old, I suffered from agoraphobia [fear of open places]. For over a year I stayed at home, being terrified to go outside of our house. How I hated my life! It took over three years to get back on my feet. Recently I had to stay in the hospital for tests. The very same fear came over me. I could not stop crying, and I was very depressed. On returning home, I sat down and read the article on phobias. I cannot tell you how wonderful it was. I feel the article has truly helped me.

J. B., England

Hope for the Mentally Ill

I sent copies of your issue "Hope for the Mentally Ill" to a hospital with a number of mentally ill patients. (September 8, 1986) One doctor replied that he was "pleasantly surprised at the article's grasp of the subject and its objectivity, particularly as regards schizophrenia." He also said: "We discussed the matter this morning at our doctors' conference, and we will pass the magazines on to our staff and to our patients." Another doctor expressed appreciation, saying that "magazine articles about mental illnesses and their treatment seldom deal with the matter in such a factual, correct, and, above all, encouraging way."

D. N., Federal Republic of Germany

Watching the World



Sick Videos

Open-heart surgery in which the patient dies of cardiac arrest, executions of revolutionaries by firing squads, a convict dying in the electric chair, and a park ranger mauled to death by an alligator are but some of the actual death scenes now available for viewing on rental videotapes. A three-volume series entitled *Faces of Death* gruesomely shows explicit motion-picture footage of people dying. How is the public reacting to this video series? "We can't keep it on the shelf," one video-store clerk in Virginia Beach, Virginia, told *The Virginian-Pilot* and *the Ledger-Star*, a Virginia newspaper. "As soon as it comes in, someone checks it out." One angry viewer objecting to the film's contents has mounted a campaign to have local shops remove the videos. Commenting on the film, she said: "It's violently pornographic."

Costly Protection

With shoplifting costing retailers in the United States about \$30 billion a year, it is no wonder that there is a growing industry producing antishoplifting devices. Among these are EAS (Electronic Article Surveillance) products called targets. They are either plastic disks that are at-

tached to items like clothing, a magnetic fiber as "fine as a human hair," or "an electronic circuit that is built into a disposable price tag." The "targets" can be removed or deactivated by employees at the time you pay for your purchases. The customers of the stores that use these devices have to exit through or past a unit that gives off a signal if the "target" has not been properly deactivated. Sales of these devices have already reached \$150 million.

New Cold Cure?

Why is it said that Norwegian lumberjacks rarely catch a cold? According to Dr. Olav Braenden,



the answer lies in the woodsmoke they inhale, reports *The Times* of London. A cold virus needs a good supply of oxygen to reproduce. However, it can be inhibited by vitamins B and C and also, it is believed, by polyphenols. These substances, found in Norwegian woodsmoke, re-

strict the supply of oxygen to the mucous membrane of the nose. It is reported that nose drops containing these three ingredients have been tested on 300 Norwegian air force personnel with a claimed cold-cure success rate of 82 percent. "The important thing is to take the drops at the first signs of a cold," stresses research director Dr. Anton Rødahl, "before the virus has done any damage to the mucous epithelium [lining] in the nose." Commercial sale of the medication started in Norway this year.

Facsimile Worship

Japanese schoolchildren, anxious to get into good schools, use technology to approach their gods. How so? According to *Asahi Shimbun*, a Tokyo newspaper, a pupil enters his name, address, school year, and the name of the hoped-for school into a facsimile unit attached to a telephone. This information is then relayed to a Shinto shrine where a priest reads it out and makes supplication at a cost of 3,000 yen (\$20, U.S.). Shrine authorities say, "Worshiping before the altar yourself is of course preferred." However, a priest of Dazaifu Tenmangu in Kyushu, Japan's most popular shrine dedicated to education, explained that shrewd people living near

the shrine have been charging up to 20,000 yen (\$140, U.S.) to represent worshipers. The priests objected to having worship made into a business by people not connected with the shrine. They decided: "Facsimile also conveys the feelings of the heart. The effect is the same," and they offered a service at a cheaper rate.

Survival Cards

Finding avalanche victims has long been the concern of skiers and mountaineers alike. Although various types of transmitter-receivers exist, few people use them because of their cost and the relative weight and bulkiness of some battery-powered models. However, a team of French researchers are working on a new idea—survival cards. Carried on the chest and back of each skier or mountaineer, they would cost just a few dollars, require no batteries, and would be about the size of a credit card. How do they work? The French daily *Le Figaro* reports that they would act like mirrors, reflecting part of a radio signal back to the rescue team equipped with a fairly powerful transmitter. In tests made with prototypes, researchers have already succeeded in detecting people buried under as much as 30 feet (9 m) of snow.

Stealing From the Government

A recent audit of Canadian government assets revealed losses of from \$3 million to \$4 million in government property annually. Although the goods are officially described as missing, it was admitted that they were "probably stolen." *The Toronto*

Star reported that among the things missing are liquor, color TV sets, typewriters, desk lamps, dictaphones, 35-mm cameras, overhead projectors, calculators, an outboard motor, and a freezer. Another form of theft from the government showed up in almost \$60 million taken from Canada's unemployment insurance by persons who tried to beat the system. "There were 180,458 incidents of fraud," according to the newspaper *The Globe and Mail*. Happily, of that loss, "\$32.3-million was recovered."

Distinctive Cries

Can a mother identify her own baby's cries from those of other infants? Yes, reports *The Sunday*



Times of London. But motherly intuition goes even further, according to the findings of Dr. Alain Lazartigues, a child psychiatrist at La Pitié Salpêtrière Hospital in Paris. From the pitch of the cry, she can also determine the reason for it, whether the child is hungry, wet, angry, or sick. Hunger, the most common cause for a baby's cry, has a high-pitched tone between 270 and 450 hertz and ranges between 80 and 85 decibels. Cries of pain, rage, frustration, and pleasure, the doctor claims, likewise have their own unique acoustic characteristics. He noted that for certain illnesses, the cries

of the child can prove helpful in diagnosis.

Veterans and TV War

Violence and war are regularly featured on television and news programs. Movies, especially, tend to present warfare in a glorified way. War veterans, however, who have experienced its bitter horrors often fail to find such televised events entertaining. Stan Knorth, a World War I veteran, now 90 years old, told the *St. Louis Magazine*: "When I see all that shooting and stuff on TV, I turn it off." The reason? "I can't take it. I don't want to remember it," Knorth explained.

Chronic Insomnia

A man suffering from chronic insomnia went nine months without sleep and then he died, reports the *Evening Press* of Dublin, Ireland. Describing the cause of death, Professor Elio Lugaresi, neurologist with the University of Bologna Medical School in Italy, explained that the rare disease affects the thalamus, a cerebral nerve circuit that passes messages between the brain and the body. When communications were interrupted, "the brain centre acted like a motor that could not be switched off." Though the victim endeavored to resist the disease, he became the 14th member of his family to die, since 1822, from lack of sleep. Lugaresi's report on the case has alerted other scientists to the apparent role genetics and the thalamus play in severe insomnia cases. Lugaresi explains: "We know the mechanics of the disease, but we have no way to stop it."

“Eat Me if You Dare!”



Even if a predator dared, it wouldn't be easy. When irritated, pufferfish blow up their bodies into a round ball. It doesn't make swallowing them easy. Moreover, when they inflate themselves, thousands of sharp hollow spines pop up out of the pores of their skin. To swallow such a pincushion makes a very scratchy throat.

If all of this is not enough to deter the predator and it succeeds in swallowing the puffer, its troubles really begin. Pufferfish are full of tetrodotoxin. Tetrodotoxin is one of the best-known marine poisons.



Notwithstanding this, its flesh is highly prized by Oriental gourmets. Called fugu by the Japanese, it is even eaten raw as sashimi. It kills many people each year. The book *Undersea Life* states:

“Despite the danger, fugu fanatics still relish the mild euphoria, hot and cold flushes, and tingling sensations afforded by ‘controlled’ doses of the poison, as well as the unusual taste of the meat. As even sublethal symptoms of severe tetrodotoxin poisoning include sweating, headache, nausea, respiratory paralysis, skin rashes, hemorrhaging, deep apparent coma without loss of consciousness, and sometimes total muscular paralysis, it is surprising that sashimi fanciers do not stick to tuna and sea bass.”—Page 180.

and the first edition of the *Journal of the American Revolution* (1958) was the first to publish the manuscript. It is now available online at www.jar.org, where it can be viewed and downloaded. The manuscript is also available online at www.johnsonlibrary.com, where it can be viewed and downloaded. The manuscript is also available online at www.johnsonlibrary.com, where it can be viewed and downloaded.

The manuscript is a copy of a letter from George Washington to his wife, Martha Washington, dated October 1776. In the letter, Washington discusses the recent Battle of Saratoga and the importance of the victory. He also discusses the need for supplies and the challenges of supply. The letter is written in a formal, professional style, typical of the time period. The handwriting is clear and legible, though there are some minor variations in the spelling and punctuation. The letter is a valuable historical document, providing insight into the thoughts and actions of one of the most important figures in American history.