

If the Train Is Late, Will We Miss the Boat?: Development Timetables, Disabilities, and Attention Learning

One of our boys' favorite stories used to be the one about the little engine that was given the awesome responsibility of pulling all the children's Christmas presents to the other side of the mountain. I'm sure you remember that determined little fellow, puffing along earnestly with his heavy load. His refrain "I think I can, I think I can," and finally "I know I can!" have inspired generations of children to muster up the extra effort to go for the top—an important lesson, indeed. I wonder, though, if the shiny moral wrapping in which the gifts were delivered should carry a warning label: CAUTION! Don't expect all little engines to do the job of bigger ones, no matter how hard they try.

I firmly believe that children must learn not to give up too easily, but as a learning specialist, I see many little engines who didn't make it to the top. Their gifts come in dull wrappings—unfulfilled promise, defeat—often with cards attached that say, "If only you would try harder." They droop with the certainty that they are inadequate and, probably, even stupid. Yet they are often very bright children. Somehow they got derailed along the way.

Children run on different developmental timetables. By age six, teachers should expect a four-year span in maturation among students of the same chronological age. Moreover, each child's unique profile of strengths and weaknesses may constitute a learning difference that eventually becomes a "disability." One of the hardest things for everyone to understand is that *bright children are not necessarily on the fastest train*. Many problems of "underachievement" result from an incongruity between the child's neurological pattern and the expectations of the family and school. In this chapter I would like to explore some of these emotion-laden issues so you can be a wiser judge—and advocate—

of a child's learning.

THE PUZZLE OF "READINESS" A Slow Starter

Whenever I think of late bloomers, I remember Heather, a small, wistful blond first grader. Young for her class, she appeared less mature than her classmates and uncomplainingly accepted the role of "baby" in group play. When playtime ended, however, her friends' tolerance decreased rapidly. One day, as usual, Heather arrived last at the reading circle, minus book and pencil. The others fidgeted while she was sent back to rummage through her desk, from which she finally produced a coverless book and an unsharpened pencil. While her classmates competently located the assigned page, she ruffled frantically through her book, unable to grasp the order of the page numbers. Flipping forward, then backward as she struggled to match her book to her neighbor's.

By the time she found the page, the teacher had finished giving directions, and the group was once more delayed while Heather got another explanation. I could see her classmates' thinly disguised impatience giving way to eye rolling and giggles as the lesson proceeded and Heather was called on to read aloud. Straddling her chair with determination, feet swinging with the force of mental effort, she struggled unsuccessfully to decode a simple sentence. Finally, the teacher sighed, "Mary, you try it," ending only momentarily Heather's daily battle in an endless war.

Would it surprise you to hear that Heather's overall mental ability was above average? It was, yet her genuine difficulty in dealing with most aspects of school had already convinced her that she was "stupid" and that learning was no fun at all. Like too many children, she suffered acutely from the gap between her need for success and the grinding daily experience of defeat and humiliation.

While a good start in school does not guarantee future success, a beginning such as Heather's—without skilled intervention—almost assures future trouble. A large proportion of youth who become serious discipline problems or drop out of school have had similar experiences. Yet almost all children, regardless of social class or background, enter school believing they will be successful;

tragically, by the time they are seven, many have already been derailed.

Heather's parents, convinced that she was smart enough but a bit "lazy," had turned down recommendations that she be given special help and another year in kindergarten to gain in maturity. They thought all she needed was to be "pushed." Well-intentioned, they had unknowingly put Heather on the wrong train, an express going too fast for her and dangerously aimed at an educational scrap heap. Fortunately, in this case, skilled intervention got Heather back on track, but I have seen many children who aren't so lucky. Survival is their business, and learning remains a tense and joyless process. Plunged daily into the fire of inappropriate expectations, their early promise shrivels, and non-learning becomes a habit. They may be labeled, treated, exhorted, and eventually tutored, but the basic issue remains unchanged. The school and the child are on different schedules.

Readiness for School

For many years experts told us that school "readiness" resulted from "neural ripening," which they insisted would unfold despite environmental influences. We now know that a child's life experiences interact with the developmental schedule of the nervous system in five separate areas, each of which is integral to learning.

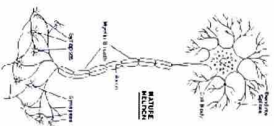
1. Physical well-being and motor development.
2. Social and emotional growth.
3. Approaches toward learning, such as receptivity and a "can-do" attitude.
4. Language development.
5. Cognition (thinking skills) and general knowledge.

The quality of environmental experience primes these connections, but, despite parents' best efforts, there are some things we can't control. As described earlier, there are basically two ways in which brain cells grow. First, message-receiving dendrites arborize, growing larger and heavier, and synapses develop and strengthen as these circuits are exercised. Second, the

long axons over which messages travel to other cells develop protective coatings of myelin, which make transmission systems more efficient.

All these processes depend on both the brain's experience and the child's own developmental timetable. In general, maturation moves from lower structures, sensory systems, and areas responsible for motor programs (e.g., reaching, walking) up to the highest centers for academic skills, abstract thought, self-control, and wise decision-making. Specific school skills such as handwriting, remembering math facts, and reading with comprehension require a certain level of neural development in addition to background understanding and practice. To make things even more complicated, children seem to mature for different skills on different schedules; some who are advanced in large-muscle coordination may be slower in fine motor control, such as holding a pencil or knitting. A precocious artist may be a slow-developing reader, and a walking encyclopedia of facts may be severely lacking in social skills. Your child will do much better if she gets suitable support in the weaker areas even while her strong points are recognized.

SPEDDING THE MESSAGES



Simply making demands on undeveloped or unprepared brain systems is a mistake, so our efforts must be tempered by patience and preparation until the child's mental transmission systems are equal to the task. Otherwise we risk frustration, inferior skill development, and an abiding distaste and incompetence for the

activity. I have visited too many classrooms where I could painfully observe bewildered children who didn't even "get" what it was they were supposed to be able to do. Tragically, these situations are most prevalent in underfunded inner-city schools that have big classes of children, many of whom enter lacking basic school skills. Blasting them with academic expectations without taking the time to pave the way is a recipe for personal and societal disaster!

The ideal situation is to consider each child's individual pattern for learning, and plan activities in which she can experience success and progress as a result of her efforts. Yet children who need such help very often struggle on until third or fourth grade, when test scores make "diagnosis by failure" a bleak reality. By then, negative attitudes and poor learning habits have already been entrenched.

Children may fall behind because they are "late bloomers," have a learning pattern that is different, and/or are in a school that makes academic demands without adequate preliminary teaching.

Lagging Timetables

A child who is lagging slightly in development is on the same track as the others. His train simply goes at a slower pace, although it stands every chance of reaching the same destination. This type of mild delay often signals an immature nervous system. Such problems may not show up in routine medical or school testing, however. Following are some signals to watch out for. While none of these indicators alone is unusual, you would be wise to read the rest of this chapter carefully if your child shows several symptoms of delay.

1. Family patterns of slow development, "late-blooming" parents or siblings, a family history of late puberty.
2. Prematurity, which almost invariably sets back a child's developmental clock.
3. Physical or emotional problems in the early months of life.
4. Chronic diseases such as asthma, kidney disease, or ear infections. Children who spend time and energy battling such problems may not pass through stages of learning as quickly and

need extra time to catch up.

5. Physical size. Developmentally immature children are often, although not always, physically small. Even large children may have a "babylike" look compared to others of the same chronological age. (Not all small children are immature, however.)
6. Lagging social development: difficulty taking turns, sharing, or communicating with peers. A child who consistently chooses younger playmates may be expressing a need for more time to grow up.

7. Immature whole-body movements and lack of control over large-muscle activities such as skipping, hopping, catching a ball, or small-muscle skills such as cutting, holding a pencil, or crayoning. Most children can go up and down stairs alternating feet by age five.

8. "Overflow movement" shows up when a child moves body parts that aren't involved in an activity—arms flap when he climbs stairs, tongue moves during coloring, feet "dance" when he sits doing a puzzle. Common in preschoolers, it is a sign of neurological immaturity in older children.

9. Delayed development of "motor timing." For example, elementary-aged children may be asked to tap their fingers first in time with a metronome and then keep up the pattern after the metronome is turned off.

10. Delayed language development, which may also be a symptom of language disability.

11. Easy distractibility and short attention span inappropriate for age. This child can't sit still and pay attention, particularly in a group, or may tend to withdraw and daydream. Remember, though, all young children have this characteristic to some degree.

12. Difficulty with impulse control inappropriate for age. Simon Says is an interesting game for diagnosis, as a child must pay attention and inhibit responses unless "Simon says" to do something. By school age, children should be able to inhibit some responses.

13. Difficulty with eye-hand coordination. One test used is copying shapes, which requires cross-modal integration of fine visual and motor skills.

14. A tendency to engage in "magical" thinking rather than

confronting the realities of a situation. “If I don’t notice it, it will go away” seems to be the immature child’s attitude toward any demanding task (including homework later on!).

15. Chronological age, as compared with classmates. Many “problem” learners have summer or fall birthdays and are younger than others in the same class. This situation is particularly acute for boys, who may be, on average, about six months behind girls in school readiness at age six. For this reason, girls should always be evaluated in comparison with other girls, not with the boys in the class.

It is important to help all children develop good learning habits. If you want to improve your preschooler’s ability to adapt to school routines, you should know that surveys of kindergarten teachers find they care much less about a child’s academic skills, such as using a pencil or counting to twenty, than about the following:

- Child can verbally communicate thoughts and needs.
- Child shows enthusiasm and curiosity.
- Child can follow directions.
- Child gets along with peers.

On a Different Track

Some children don’t seem so much delayed as different in development. Children do, indeed, have “styles” for thinking and processing information, differences that are either inherited or environmentally induced. In chapter 6 we will explore differences in the two sides of the brain that may help account for styles of learning, even in preschool years.

Children with “different” learning styles can have trouble because their natural talents don’t conform with the school’s demands. For example, I think of Sam, a seven-year-old boy who is a whiz at block-building and can fix any mechanical device he gets his hands on (after he has it for a few minutes it needs fixing, because he takes it apart). His room is a “disaster,” but it contains a novel “kitten catcher” that he has rigged up with string and boxes, and his toy shelves hold several half-completed models of “my latest invention.”

Sam sounds like a budding genius, but he is already in trouble in school. First of all, his language development is unsophisticated and he sometimes confuses sounds. When he tries to describe something, he splashes words all over his topic without organizing them very well or getting to the point. He would much rather show than tell you about something, and he is massively disinterested in his mother’s efforts to read to him. As far as Sam is concerned, pencils are good only for drawing, and he is quite unclear about the left and right sides of the page. At school he finds reading difficult, preferring to play or build things outdoors. He has trouble following oral directions, but he can patiently figure out how to make two pieces of wood go together just right. No one can be good at everything, and the parts of his brain that control language and reading are lagging behind his other areas of advanced development.

In another culture Sam might be considered gifted, but his school expects children to spend most of their time reading, writing, listening, and doing math papers. His pattern of learning is different, not deficient, but he may always struggle in a setting that values verbal and analytical skills more than his creative, hands-on talents.

A thorough professional evaluation reveals that Sam is dyslexic even though his overall IQ is in the “gifted” range. He needs special teaching techniques in order to learn to read and spell successfully. What will happen to Sam? The things for which he is “ready” aren’t in the curriculum. His father, a successful architect, remembers his own grim school experience and wants to spare Sam similar anguish. What can he do?

No Easy Answers

No easy answers exist for these dilemmas. There is no point in forcing learning on a brain that is unequipped—either through delay or difference—to handle it. But young brains are plastic; they can be changed by good teaching and family support. For example, new imaging studies show that the areas in Sam’s brain needed for successful reading can be activated by systematic teaching techniques, which you will read about in chapter 7.

In an ideal world—and in well-informed schools today—several things help prevent failure. Parents and teachers work together to understand the problem, preserve the child’s self-respect, and develop a coordinated plan that includes specialized help, as indicated. Since different children learn through different channels, good teachers vary instructional approaches to make learning a more successful experience for all. Sam can receive special help in language, reading, and spelling; learn math through a “hands-on” approach with manipulative materials; and get lots of positive recognition for his mechanical skills, creative ideas, and generous disposition. Standardized tests should be used diagnostically—to gain information about Sam’s progress and needs, not merely to label him as inadequate.

Heather also needs some special help, and she would have a much better chance in a less rigid classroom organization that could accommodate different levels of maturation, perhaps by grouping children of multiple ages together in the early grades. If the school is hopelessly inflexible or expects children to accomplish work that is developmentally too advanced for their age, immature children sometimes have a better chance if they repeat a year—preferably in preschool or kindergarten. Repeating helps some struggling students, but it is far from a panacea and should be considered only if:

1. The major problem is immaturity;
2. The school judges that the child can be successful with another try;
3. It is done as early as possible;
4. It is presented to the child as an opportunity rather than a failure, and her parents are sold on the idea;
5. She receives help if she continues to need it.

In Heather’s case, another year in first grade, with special support from a learning specialist, seemed to be the best option. After observing her frustration in class, her parents not only helped sell Heather on the idea, but they and the school also gave her a great deal of positive emotional support throughout the transition. Above all, no one ever accused Heather of “failing,” and she went

on to eventually become a good student and a class leader.

Alas, not all parents have access to a school that puts children's needs at the top of the list. If you have a child like Sam or Heather, or if your child is having any kind of difficulty that lasts more than a few months, you should step in and try to discover what the problem might be. Talk with the teacher, describe your concerns in a nonjudgmental way, and try to work out an action plan for both home and school. Often this is all that is necessary. If the problem continues and appears serious, however, you will find specific steps to take later in the chapter.

One thing is clear: children do not desire to fail. From the day they are born, children are naturally motivated to learn, to master their environments, and to feel competent. Naturally, they learn best the things that are meaningful or important to them. It is our job as adults to devise tasks to harness that natural learning power, not to play the Blame Game if our demands are unfair. We can give children the desire to succeed at the things we want to teach them—by helping them feel competent and making early learning experiences interesting, successful, and understandable. Even drill on basic skills can be energizing if it is embedded in a rich curriculum that is intellectually meaningful to the child.

Promoting Learning at Home

Parents must help. Sam might sit still for stories about inventors, machines, or gadgets. He might respond with interest if someone at home offered to write large labels for his inventions or type up his descriptions of them and help him read them. A parent might help him draw plans for a new bookcase in his room, improving fine motor control and planning. He could dictate directions, in order, for making a "kitten catcher," and play games following other directions.

Heather's family can try to boost her confidence in herself while guiding her to assume more personal responsibility and praising her for acting more mature. They can make sure she has all the equipment she needs for school each day and help her practice organizing and using it. They can read interesting books to her that she is not yet ready to read herself. She might like to dictate stories

or keep a journal (see chapter 10).

For children who are not lucky enough to have such supportive homes, the community and child care centers have a big role to fill. Children's initial experiences in school shape their lifelong attitudes about learning, cooperating in society, and being responsible and productive.

Formal instruction places a whole set of new demands on the child's nervous system. To be ready, children need:

1. Sufficient rest and nourishment in order to concentrate for several hours.
2. The experience of listening, following directions, and responding politely to adults.
3. Knowledge of appropriate behavioral limits.
4. The experience of socializing with other children.
5. Help in obtaining and organizing school supplies.
6. Clothing chosen because it is easy for the child to manage, not because it has a designer label or is cute.
7. Help in learning to express needs, concerns, or questions independently.
8. Practice in holding small objects and manipulating scissors, glue, crayons, paint brushes, and rulers. Practice in following a left-to-right pattern.
9. Understanding that books are interesting gateways to stories and information.
10. Physical and emotional safety.

"But She'll Be Bored"

Some parents face a totally different problem—a child who takes to learning at an unusually fast pace. If your child is stuck in a deadly-dull curriculum, you should try to change things if at all possible and supplement schoolwork with interesting learning opportunities at home to keep curiosity alive. Good curriculum doesn't necessarily mean pushing kids into more advanced learning activities simply for the sake of acceleration, however. Research shows that your child's ultimate success in life will depend more on personal characteristics like motivation,

creativity, and the ability to communicate effectively with other people than on whether he reads Dickens in the fourth grade. Some parents, in fact, are overly concerned about "boredom." Young children enjoy repetition, for it gives them a feeling of control and mastery, and sometimes clever children learn to use the word "boring" to avoid difficult tasks. Their parents are so panicky about slow progress that a reaction is guaranteed.

Remember that the heady experience of daily success and mastery is not boring for a child. Remember, too, to listen. I remember one mother storming into a nursery school to complain that they weren't challenging her daughter, who had come home and announced that she was "bored at school." The teacher was surprised, since the little girl acted happy and excited about classroom activities. The impasse continued until someone decided to ask the child what "bored" meant. "Oh, it means I'm hot," she replied cheerfully. Indeed, there were some problems with the furnace, and in dance class, when she heard another child comment that he was "bored," she thought she had learned a new word! Happily, the mother apologized and the child continued to learn in a stimulating but unpressured setting. I guess the moral of that story is, listen to the child's feelings, not to your own.

Even in upper grades, when brains are primed for more advanced learning, youngsters still have a strong need to feel competent. The main challenge of good teaching is to find that golden mean combining curiosity, challenge, and possibility.

The Fast Track

What about skipping a grade? Occasionally, in cases where the child is truly precocious in overall mental, physical, and social development, acceleration may be advised, but such children are rare. A series of studies looked at such exceptional twelve-to-fourteen-year-olds who were accelerated because they scored as well as high school seniors in mathematics achievement. At age twenty-three they showed little difference in social or personal factors compared to a comparable group that had stayed with their own grade, nor were most of the precocious group significantly advanced in academic and personal achievement.

Generally speaking, it is desirable to keep the youngster with age mates when possible, working with the school to develop opportunities for appropriately challenging work. The all-important interpersonal skills are best gained from successful peer relationships. Intellectual stimulation is a valuable goal, but it takes a truly exceptional child to avoid compromising social and emotional needs by skipping grades.

In cases where a child is truly bored or has tuned out because his exceptional talents simply cannot be addressed, acceleration in one or more subjects may be advisable if:

- the student receives ongoing support from teachers and parents;
- the student has effective study habits;
- the student has access to similarly talented peers and/or an adult mentor.

Such decisions should always be made thoughtfully. Last year a friend of mine asked his son's principal for advice about the boy, who was small and physically immature for his age but academically gifted. The teacher had suggested that Paul might skip fourth grade, possibly because his parents kept pushing for extra enrichment. My friend was worried about such a major step, not only because of his son's physical immaturity but also because Paul had many good friends in his current class and seemed happy and successful in school. After hearing the whole story, the principal casually reminded Dad that when Paul got to junior high, the boys in the locker room would not be comparing IQs. Paul stayed with his class.

On a Different Track: What to Do?

If you suspect your child may be a candidate either for slow or unusually rapid maturation, or for a learning difference that will cause trouble, what should you do? First, try to be as objective as you can about the situation. Observe your child in groups of peers and strive for a candid view of all areas of development. Teachers are more objective than you, since they see your child in an age-centered context every day. Most schools have psychologists on

staff who can observe children and perhaps administer diagnostic tests. They tend to be overscheduled, however, so you may choose to speed up the process by consulting an outside specialist.

Start by having a heart-to-heart talk with an understanding physician to rule out unidentified physical problems. Pediatricians are becoming much more aware of learning problems, but they still don't see the child in school every day. Inform yourself from among the many books written about learning styles and learning differences so you can ask good questions. You may wish to request a thorough evaluation from an educational psychologist who specializes in these issues, or a neurodevelopmental evaluation at a hospital or clinic. A one-shot group-administered test is a very poor index of a child's development, and parents should not accept such results as definitive. Read chapter 8 to learn more about testing. Insist on the services you need; the school is obligated to provide them but sometimes, in order to get the train on the track, you need to rock the boat!

In any case, resist that urge to panic, which may cause you to start pressuring the child. If recommendations are made, take them seriously. Analyze ways in which you can provide pleasurable experiences at home that are directed to your child's particular needs. Above all, focus on your child's special talents and emotional needs. They are particularly important for the brain's most basic assignment—paying attention.

LET'S PAY ATTENTION

Attention and its partner, self-regulation, are the foundation of learning. They are also an increasing problem in our "multitasking" society. Genetic factors, prenatal toxins, drugs, and alcohol as well as prematurity put children more at risk for attention deficits, but many other possible causes exist. In fact, difficulties with attention now comprise a large proportion of referrals and diagnosis for all childhood psychiatric disorders, and many children are taking some sort of medication—stimulant or otherwise—to help them settle down and concentrate. In this section I will summarize a huge body of research and opinion on this subject and try to offer some useful suggestions. Although these core abilities are rooted in the physiology of the brain, the

home and school environments have a great deal to do with how a child learns to use his particular attention mechanisms.

The whole issue of attention disorder, which is called ADHD, or Attention Deficit (with or without Hyperactivity) Disorder, is controversial. Definitions of and testing procedures for the disorder are vague and vary greatly among different communities and professionals. Moreover, the widespread use of psychotropic medications, such as Ritalin, Concerta, or Strattera, has come under question because of potential side effects and uncertainty about long-term effects. While they clearly help some children control their behavior more effectively in the short term, they are not a "cure" and should be accompanied by behavioral treatment and careful monitoring.

Many ADHD children are very bright and creative. The increasing medicalization of attention problems as well as the term "disorder" is questioned by many specialists. A number of highly successful and productive adults might have been so labeled if this category had been around when they were growing up. Some children with attention problems show significant improvement at adolescence, but increasing numbers of attention-disordered adults are currently being diagnosed.

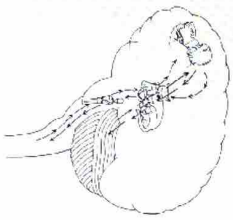
Attention changes with age—a normal lack of inhibition in a four-year-old becomes a serious problem in a ten-year-old. Moreover, a regular bumptious child (usually a boy) may seem very much out of place in an overly restrictive and stressful classroom. When normally active youngsters are condemned to desks and routine pencil-and-paper tasks all day, we should not be surprised if they show up with problems. Many schools are increasingly restricting children's free playtime. This is bad for everyone, but especially for children with a strong need to work off physical energy.

Attention problems are also found in many children who have language or reading problems; sometimes treating that problem makes it easier for the child to focus on learning. It is also probable that too much time with TV and video games exacerbates attention difficulties, as I have explained in *Endangered Minds*. One mom just told me that after their house was burglarized and her ADHD son's electronic game cube stolen, his behavior and attention span improved almost at once.

Different Brain?

Scans show that the brains of "attention-disordered" individuals function differently from "normals" when they are given various types of tasks. Figuring out why is not a simple issue, however. Paying attention requires maturation and use of a number of widely scattered brain areas, all the way from the brain stem up to the top level of the prefrontal cortex. Interconnecting loops pass up and down and forward and back (feed-forward and feed-back systems) through structures in the limbic system, or "emotional" brain, including areas involved in memory and motivation. These connections function partially on neurotransmitters in the catecholamine system called dopamine and norepinephrine. Most drugs used to treat ADHD regulate these chemicals, although no one has agreed on exactly how they do it. We also do not know how much of one's neurotransmitter balance is determined by genetics and how much by experiences, activities, and emotions.

MAKING CONNECTIONS: THE ATTENTION LOOP



Research has clearly demonstrated that there is a hereditary tendency for attention difficulties, but there is also evidence that the brain's chemical balance can be changed by environmental factors. For example, chronic stress revs up fight-or-flight hormone and neurotransmitter systems and can even kill off neurons. On the other hand, numerous studies suggest that learning to keep one's brain quiet, as in reflection or meditation, has the opposite effect. So, even though your child inherits genes for an attention problem, the severity with which it expresses itself will be influenced by home and school.

The best time to intervene to build positive attention habits in the brain is as early as possible, and definitely before age seven. You should be particularly mindful of this possible "sensitive period" if anyone in the child's family suffers from distractibility, mental disorganization, or impulsivity. Nonetheless, changes are still possible at any age, especially if the individual is highly motivated.

Step One: is to aim for a positive and understanding emotional climate. Parents who are overly permissive or overly bossy are more likely to have children with problems. "Authoritative" parenting produces children most able to manage their own behavior (self-regulation), who get into less trouble in school, are better adjusted socially, and who develop more powerful attention and motivation systems. These parents are (most of the time—no one's perfect!) firm, loving, reasonably patient, empathetic, willing to listen to the child and negotiate rules, and available to give emotional support when the child needs it. Emotion, motivation, and attention are wound together so tightly in the brain that it is impossible to separate them.

Step Two: Establish reasonable expectations for behavior, set clear rules, and discuss or negotiate them with the child. Also, talk over what the consequences will be for infractions. Check the child's understanding by asking her to tell you what you just talked about. Please heed the word "reasonable." Sometimes parents tell me they insist that their five- or six-year-old sit and work on schoolwork with them each night for an hour or more. Many adults have trouble understanding the real limitations that immaturity places on the ability to stay with one task—especially one the child didn't choose. On the other hand, some parents have never learned to say "no," which is, unfortunately, part of our job. It is no kindness to either the child or the world to turn loose an individual who has never had a chance to experience and internalize a reasonable control system.

Step Three: Direct your best efforts to establishing a well-regulated household environment. If your child inherited the attention problem from you, this task is a real challenge—but your child needs it. Uncontrolled households, where routines are never made clear and that blast young brains with too many stimuli and

too little structure, impose stress on the growing brain and may diminish the development of internal control systems. Even ongoing background noise stresses out adult brains, and it can be a real trial for a child's tender synapses. Conversely, rigidly structured households that place unrealistic demands on children or keep them in fear of making a mistake can be equally damaging. You can help your child find the best stimulus level during different activities. The brain has instinctive drives to regulate the amounts of stimulation—auditory, visual, and tactile—that come in, but children can miss their own cues. Watch for signs of unusual behavior, overexcitedness, wildness, or withdrawal, which signal a need for protection from sensory bombardment. Do not expect children to realize when they have had enough excitement. The same goes for "screen time." It is much harder to turn off a TV or computer than to turn it on—even for adults.

Step Four: Teach your child to use words to plan and control behavior. We will return to this very important point later. Language is also a major route to good social relationships, which are jeopardized if the impulsive child is annoying to peers in play or cooperative learning situations.

Step Five: If you think your child has an attention deficit that is inconsistent with age and has persisted more than six months, you may decide to consult with your pediatrician or a pediatric neurologist for a clearer diagnosis. First, inform yourself by consulting several books, since there are many different points of view on this "disorder." Be aware, also, that chronically hurried physicians are noted for prescribing medications, period. Experts agree that any treatment plan—whether or not you choose to use medications—must include behavioral counseling for both parent and child. A good professional can help you understand how to manage the child and the behavior most effectively. Systems of clear, short-term rewards and consequences are often spelled out, so the child can start to take control of managing himself. The school should also be informed and involved in the treatment program, and a helpful teacher can make a big difference. Do remember that if your child has a real self-regulation problem, he is not doing this on purpose. Keep the emotional supports and conversation in place, and you will get much better outcomes.

Many parents do not wish to give medications to their child. In this case, it is doubly important to read widely and try sensible alternative approaches. Some of the general suggestions below may be helpful.

In a Nutshell: Helping the Attention Regulator

- Establish firm limits and predictable routines. Teach your child what “no” means—but not punitively.
- Insist on a regular bedtime and adequate rest. Insufficient sleep can cause attention problems. Make a routine of story time before bed.
- As the child grows, make sure she feels she has more say in setting rules and some choices in negotiating them.
- Insist on a noise level in the home that is within reasonable limits. Some parents refer to “indoor voices” and “outdoor voices” to give children a concrete cue. Moderate or eliminate background TV noise.
- Remember that you have a framework of experience that helps you screen out sounds, while the child does not. One little boy was terribly distracted until his mother finally realized he was frightened by the sound of airplanes overhead, which she hadn’t even noticed. After she showed him what they were, he was able to concentrate better.
- Make sure the young child has a quiet space of his own to go to at any time—even if it is only a card table covered by a blanket.
- Keep adult-type stimulation to a minimum (e.g., inappropriate movies, TV, or adult magazines; overly exciting or alarming adult conversations). Help “mediate” your child’s response by discussing content together.
- Limit TV viewing. Be tough—it’s important. Until we have research to the contrary, we must consider that too much viewing may change brain patterns and make it harder for a child to concentrate in school.
- Supervise and restrict the amount of time spent on the computer. See “Mediating the Media” later in this chapter for specific guidelines.
- Insist that your child get some physical exercise every day,

preferably outdoors.

- Some youngsters who have attention problems also have difficulty managing sequences of movements. For a child like this, individual sports like swimming, bowling, or hiking may be preferable to team sports. Sometimes training in tae kwon do, karate, or yoga can enhance control systems.
- Spend some time working with your child and showing him how to solve problems systematically. Play a game, start a project, take up a hobby, such as model-building or cooking together. Talk about the steps you take to attack each problem.
- Let attention span develop naturally by also allowing time for a child to become actively engaged in a task without interruption.
- Be sure there is someone in the home to whom the child can go to be hugged, held, and calmed down if necessary.
- Physical contact (hugging, rocking) is still necessary for children beyond infancy.
- An overexcited child may respond to a gentle but firm touch. Hold him gently by the shoulders or sit close to him with your arm around him.
- Get the child’s attention, with eye contact, before you give a direction. Check understanding by asking him what he heard.
- You may need to help a young child shift focus from one activity to another. Pave the way in advance. (“When you finish putting the spoons in the jar, I’m going to ask you to wash your hands for dinner.”)
- Prepare the child for potentially alarming or upsetting situations. (“On Halloween children will come to our door dressed in funny costumes that may look scary sometimes.”)
- Some children may have trouble regulating attention because of allergic responses in brain tissue to food or environmental substances; if you suspect an allergy, check with a specialist.
- Pay attention to nutrition. Try to identify substances or situations that create problems. Some parents find that excess sugar or sugar substitutes in a child’s diet seem to contribute to “hyper” behavior and mood swings. Again, it is worth your effort to maintain a firm hand here. Some nutritionists are convinced of the benefits of essential fatty acids or certain vitamins in a wholesome diet.

- Avoid frenetic scheduling. Your child’s brain will thrive with some downtime instead of constant activity.

- Use words along with actions when showing something to the child; language is the ultimate mediator of attention.
- Some attention problems may show up as lethargy or “spaciness.” While the dimensions of this problem are not entirely clear, it too may warrant a consultation with a specialist.

The Power of Language in Regulating Attention

The effectiveness of the prefrontal cortex, which governs the attention system, may be improved by using words to guide behavior. Most adults instinctively use this brain-building “inner language” to work through problems or plans—literally talking to themselves inside their heads. Studies show that even little children perform a task better when they use “private speech” along with actions. Parents can help a toddler, for example, by describing what she is doing and encouraging her to use words. (“You are pounding the pegs into the board. Let’s say ‘hit’ every time you pound one.”) Household tasks such as cooking present many opportunities. (“Let’s go over the steps before we start.” “What ingredients do we need?” “Did I do it right?” “What’s the next step?”)

An interesting long-term study started with kindergartners and ended when they took the SAT years later. Experimenters gave each child a marshmallow with the instruction that if they could wait a certain number of minutes before eating it, they would get two marshmallows to eat. Those who were able to control their impulses and wait had higher scores years later on the SAT than those who were unable to defer gratification and gobbled up the treat at once. The strategies that successful “waiters” used included trying to ignore the marshmallow and, significantly, talking to themselves about how important it was to wait and how happy they would be when they received the extra marshmallow. The gobblers had no such strategies to help put their brains in charge of their behavior.

Children of all ages should be encouraged to talk through situations before plunging in and while they are working. I

frequently ask distractible youngsters to “sit on your hands and tell me what you think you should do with this problem” (work sheet, drawing, sentence, math equation). They think it is funny, but it gets their brain into communication with itself and they do a better job.

I remember one impulsive eight-year-old who could not remember to bring both book and pencil to the reading table. Every day the teacher said to her, “Tell me what you will need. Now ask yourself, ‘Do I have my pencil? My book?’” She thought this was a wonderful game, and soon we had only to say, “Have you asked yourself *the question?*” Eventually, Danesha was able to do it herself. Now a sophisticated preten, she sidled up to me in the hall not long ago with a big grin on her face. “You know,” she said, “I still ask myself *the question!*”

Mediating the Media

Since I wrote two books about the effects—both good and bad—of TV and computers on the growing brain, I have been traveling around the country speaking with quite a few parent groups. I invariably find someone who tells me about successfully banning the tube completely from their home—and subsequently watching their children’s attention, their grades, and their family life together begin to flourish in new and wonderful ways. I admire the grit of such folks, and I suspect that their children will have a very good chance of becoming successful. Most families are seeking milder alternatives, however, so above are some practical tips.

MANAGING “SCREEN TIME”: TV, VIDEO GAMES, AND COMPUTER USE

- Guidelines from the American Academy of Pediatrics:
 1. Remove TV and computers from your child’s bedroom, and keep them in a central area where you can keep an eye on the amount and type of use.
 2. Screen carefully for content. Watching violence is poisonous, especially for some children who seem to be most susceptible to its effects. Even some sports video games contain gratuitous violence. Monitor for inappropriate sexual material or overly frightening content.
 3. Enforce time limits:
 - a. Ages below two years: No screen time.
 - b. Above age two: Limit TV, movies, and video and computer games to one to two hours a day (or less, or even none) of educational, nonviolent content.
- If you want your child to be a good student and a motivated reader, and she is spending more than ten hours a week with TV and video, take some constructive limiting action. You may need to negotiate a new plan with the child and effect a staged withdrawal.
- Moderate amounts of well-supervised television viewing do not appear to detract from children’s school achievement. Likewise, by the time children are in elementary school they can profit from working with some types of computer programs—especially if you are part of the activity. We know too little about the effects of video games; they do improve eye-hand coordination in ways appropriate for airplane pilots, but not necessarily for readers and writers. Screen time definitely detracts from reading time and from imaginative free play.
- Consider the possibility that children are better off without computer use until age seven, when their brain is better able to process this type of two-dimensional learning.

- Be especially careful to scrutinize TV programs for children under six. (Programs that may be most suitable for preschoolers, such as *Mr. Rogers*, tend to bore many adults. Don’t apply your standards; watch your child’s response.)
Look for:

- comprehensibility: Can the child tell you what it was about?
- slow pace of conversation and segment length
- invitations to the child to respond
- good language use
- positive attitudes conveyed about others
- good models of behavior; absence of “sassy” content or language

- Negotiate limits for all screen time and program choices with your school-age child. Help her plan what she will watch each week. Stick to it.
- Watch TV with your child when possible. Discuss what you see. Don’t be afraid to model your own values by questioning characters’ behavior or plot formats.
- If your child is allowed to watch an unsuitable program at the house of a friend, try to put it in perspective by discussing with your child why you do not allow that material in your home. Ask for the child’s opinions, and listen to them. You may find he really didn’t care for it, either.
- Insist that substitute caregivers follow your rules.
- Check out the National TV Turn-Off Week, held every April (see bibliography). You will get some new ideas, and your whole family will benefit.

In chapter 5 we will look at the new field of “media literacy,” in which parents can use TV programs and even commercials as learning tools. The bottom line is that we do not know for sure what any of our electronic media do to the growing brain, but repeated exposure to any stimulus is bound to have neurological consequences. Parents who have made the hard decision to be temporarily considered ogres often receive their children’s gratitude much later on. They know they were right when their

grown children insist on similar guidelines for their own youngsters. Have courage—you are wiser and you own the house.

ON THE RIGHT TRACK

Many perspectives on learning converge on one point: Children must have time to do their own mental growing. Parents and teachers are the “scaffolds” for the process, but the child is the true magician, with an instinctive need to learn, to master, and to seek out the right challenges. Adults who try to take over the show run a serious risk. By imposing demands relating to their own cognitive frameworks instead of to the child’s, they can distort the natural timetable. Pushing little engines up the mountain doesn’t work in the long run, because there will always be higher mountains on the other side that the child must eventually tackle on his own.

As one who has watched many late and different bloomers flourish as the years passed, I can honestly tell parents, “Keep the faith.” Heather is now about to receive her PhD in environmental biology, and Sam is successfully running his own construction company. It took many caring adults and many years for them to find their own routes, but patience paid off.

Both the fast and the slow starters need an opportunity to explore the schemas of childhood on their way to the top. Since we don’t have a “golden screwdriver” to magically alter neural growth (if we should even want to!), we must accept and work with each child’s pattern. Many “late” or “different” bloomers are children who have formidable potential. Lest their talents be lost to society and to themselves, let’s do our best to keep them on the right track.