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What if you couldn't . . . ? a book about special needs

# What if you couldn't...?

a book about special needs

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#### About handicaps

When I was in grade school, I was a hall monitor. I was also fat, wore glasses, and read a lot of books. My job as a hall monitor was to make sure that nobody came into the building during the last part of the lunch hour. My post was directly above the "special room."

Everybody knew that all the kids in the special room had something "wrong" with them, but nobody knew what. They came later and left earlier and had their recess and lunch hour at different times than the rest of us. We never knew why, and none of our teachers ever talked about it.

The "special" kids came back from lunch earlier than the rest of us and had to walk through the playground during everyone else's lunch hour. Naturally, everyone stared. Some kids teased them and made fun. That made me angry, but I didn't make friends with the special-room kids either. It was too dangerous: The other kids might make fun of me too. Besides, I was afraid. Who were these kids? Why did they come and go at different times? What was wrong with them? Were they bad? Could something about them hurt us? Could we catch what was wrong with them? Why didn't anybody ever talk about it?

These seem like silly questions, but they are questions that many people, both children and adults, have in their minds when they meet others who look or speak or do things differently from what they expect—especially if these others are made to seem "different" from everyone else by being separated and ignored. Seeing people who seem "different" can make us afraid that we may be "different" too. It also makes us embarrassed for the person and for ourselves. We don't know what to say or how to act. The only thing we know for sure is that we are "not supposed to stare."

As you can imagine, this situation probably didn't make the kids in the special room feel too good about themselves. It's hard to learn and grow and feel happy when a lot of the people around you are either ignoring you or making fun of you. There is nothing wrong with a special class if you need extra help in school, but a special class that makes you feel different and bad about yourself won't help you much.

If the special class in my school had not been hidden, and if we could have played with the kids and done things together and been able to ask questions when we were curious, I think that everybody would

have been much better off. We might all have learned a lot about how people really are different from each other and how they are mostly very much the same. We might have learned that there is more than one way to do almost anything.

That was a long time ago. For some kids in special rooms and special schools things are different now, but for some others everything is about the same. Other kids are still afraid of them. Other kids still make fun of them without even knowing why. Other kids still have questions they don't know how to ask. Somehow, in growing up, I started asking questions and stopped being afraid. It took a long time.

When I was working on an exhibit about handicaps for the museum where I work, I interviewed people who had handicaps to find out what they wanted other people to know about the subject. They said many things: Tell kids and their parents that we are doing fine and that we don't need pity. Tell them they can ask questions and they don't need to be afraid. Tell them about the aids that help us do the things we want to do. Tell them not to have hurt feelings if we don't need their help. And one man said, Tell them that we go to the bathroom too. That sounds like a bad joke, but he meant that because he has a physical handicap that everyone can see, people often treat him better or worse than they otherwise would and are sometimes awkward or embarrassed around him. He is not better or worse—he goes to the bathroom, just like everyone else.

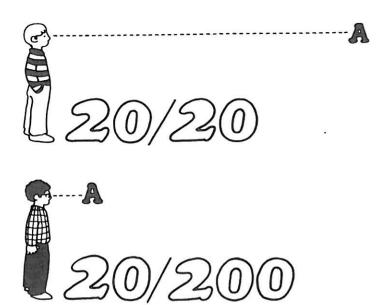
People are usually curious and a little afraid of

things they don't understand. That's natural. This book tries to answer questions about what happens when something about a person's body is different from most other people's bodies. It won't make you really understand what having a handicap is like, because no one can really know that without experiencing it, but it will give you some ideas. I hope it will also make you less afraid both of meeting someone who has a handicap and of the possibility of your having one too.



# What if you couldn't see as well as everyone else?

Lots of people have less than average eyesight. I do. I wear glasses to correct my eyesight so that it is almost what it ought to be. If you wear glasses yourself, you know how hard it is to explain to others what the world looks like without your glasses. I've used words like "fuzzy" and "blurry." Sometimes I've said that I can see a tree, but I can't see individual leaves until I get right up close. Now that I'm grown up, people don't tease me about wearing glasses, but they used to. I guess they did this because my glasses made me look a little bit different from everyone else. Or maybe it was because the glasses showed I had an obvious weakness that many others didn't have. I kept thinking, Isn't it bad enough that I can't see as well as they do? Do they really have to make a big deal about it too?



What's "20/20 vision" anyway? Everybody's heard the phrase, but not many people know what it means. Twenty/twenty is a way to talk about average eyesight. It means that you can see something from 20 feet the way an average eye is supposed to see it. A person with 20/200 vision sees something 20 feet away the way an average eye can see it from 200 feet away.



If you had limited vision, you might have to get very close to things in order to see them clearly.

Wearing glasses can correct most people's less than average eyesight, but for some people, glasses may only help a little or not at all. Even with glasses, they may have to get very close to things in order to see them. They may have to be more careful in getting about, so that they don't bump into things they don't see clearly.

To get an idea of how things might look to someone with seriously limited eyesight, look through the frosted glass in a bathroom window or shower or through a piece of crumpled wax paper. You'll notice that you can see light and the outlines of objects, but that it's very hard to make out any details.

People who have problems with their eyesight that glasses can't entirely correct may use other aids to help them see. You are probably already familiar with many of these aids, such as magnifying lenses. In your town library, there is probably a section of largeprint books. These books are set in large type like the kind used in books for little children, but the words are the same as in the grown-up books printed in reg-

Large-print books are often printed in a type this size. If you had a hard time reading books printed in regular sized type, this larger type might make it easier for you.



ular type. Next time you are in the library, have a look at them.

A monocular is something like a telescope, and it's an aid that someone with seriously limited vision might use. If you needed to use one, you would carry it around in a little case and pull it out when you wanted to focus on a particular object.

#### But what if you couldn't see at all?

People with just about no usable eyesight are said to be blind. The idea of being blind is very scary to most sighted people. They are afraid of the idea of being in darkness all the time. They also can't imagine how they could live without seeing. They are probably thinking that they couldn't go out or get a job or take

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Using this chart, can you figure out what these say?



care of themselves without other people helping them all the time.

Of course, if you became blind you would be frightened, and blindness would certainly cause you to live differently, but the situation wouldn't be as hopeless as many sighted people think it would.

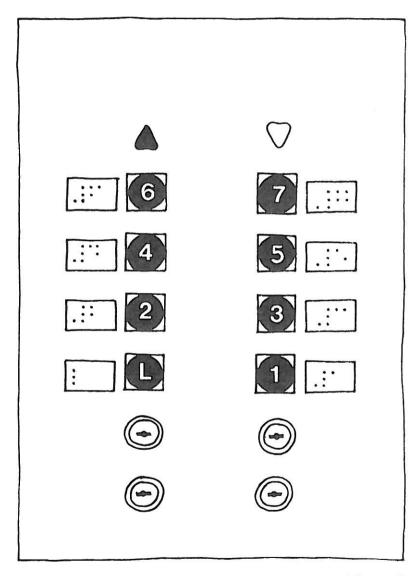
Think about some of these questions. If you couldn't see, could you get from one place to another? Learn to read? Go to school? Have fun?

A person who is blind can do all these things and most other things that sighted people do, but instead of using the sense of sight, he or she would use the senses of hearing, touch, smell, and also memory.

Let's take reading. You learned to read by learning a "code." You learned that each letter in the alphabet has shape and a sound, that these sounds can be linked together to form a word, and that each word has a specific meaning. At first, this process probably took a long time. You had to think about how each letter looked and remember what sound it represented, and you probably made a lot of mistakes. But, eventually, you became good enough to read most words quickly and easily. You broke the letter "code."

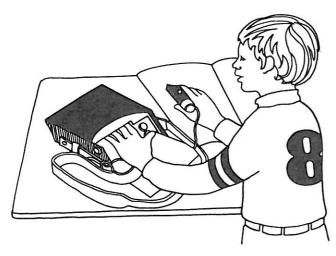
Braille dots are a code just like printed letters, and you learn to read them the same way except that you use your fingers instead of your eyes. Each letter of the alphabet is made from a different combination of raised dots. A sentence written in braille *looks* like this:





Look for brailled elevator panels in government and office buildings and airports and hotels.

If you would like to have an idea of what braille *feels* like, try punching out letter combinations on a stiff piece of paper with a small nail. You probably won't be able to read what you have written with your finger, because learning this method of reading takes just as much time and practice as learning to read printed words by sight.



Braille has some disadvantages. First of all, it takes up much more space than printed letters, so books in braille tend to be very big and bulky. Also, not everything you might want to read is available in braille. For these and other reasons, two recent inventions are now on the market. One of them is called the Opticon. It translates printed material into electrical patterns that can, with training and practice, be "read" with your finger like braille. Unlike braille, the material to be read does not have to be put into the special raised dot form. The other new invention is a computer that reads aloud. Computers have had "voices" for a long time, but the things computers were able to "say" were limited to what was programmed into them. Now a way has been found for the computer to "read" directly from a book. Both these inventions are quite expensive right now, but in the coming years they will probably become cheaper.

Of course, one needs more than a small nail to write in braille on a regular basis. A typewriter called a brailler can produce raised dots on paper. Books in braille are produced on large presses, just as printed books are.

Another way to read if you don't have sight is to "read" by listening. One way to do this is to ask or hire someone to read to you. A schoolteacher I met has a "reader" read his students' papers and tests to him for grading. Of course, this method is sometimes inconvenient, since you have to depend on another person to help you get your work done, but in some cases it may be the only way to get the information you need. Another way to "read" by listening is through tape recordings or "talking books." You may have heard of talking books. These are books that have been put on records so that you can listen to a novel, textbook, or magazine. People who use this method often become very good at listening and remembering what they have heard. Talking books can be ordered through the mail or borrowed from the library. But, if you were blind, could you get to the library?

People who are blind use some special equipment like the brailler, which types in braille, but they may also employ some very familiar equipment. If you were blind and wanted to write a letter to a sighted friend or needed to write a paper for a sighted teacher, you would probably find that typing on a regular typewriter was the best solution, and, in fact, many people who are blind are excellent typists. You might also find that a tape recorder would be a good way to take notes in class.



People who are blind must make better use of the rest of their senses than sighted people do. This does not mean that they have "super" skills, only that they are paying better attention. Try closing your eyes while someone else is cooking dinner. Can you tell from the smells and sounds what's cooking? Try sitting with your eyes closed and just listen. Can you "hear better" with your eyes closed? How much can you tell about what is going on around you?

Try an experiment. Close your eyes and walk to your bedroom and try to find something like your shoes or a book. You might have some trouble doing this, but you will probably succeed. (If you think you are going to cheat, use a blindfold.)

What did you notice? What kind of clues did you use? Did anything you remembered from the many times you had done the same thing with your eyes open help you?

The reason why you probably succeeded in this

blindfold test is that the rooms and spaces you were moving through were familiar to you. If you have lived in your house or apartment for a long time, you will remember how many steps it takes to get from one point to another without even really thinking about it. You will remember where the rug ends and the bare floor begins and where pieces of furniture are and what they feel like. If you really were blind, you would pay even more attention to these little



If you were blind and walking with a sighted guide, you would walk slightly behind the person guiding you while holding your guide's arm just above the elbow. Your guide might tell you that a set of stairs or curb was ahead or that you were about to turn right or left. You would not want anyone to pull you along by the hand or push you along from behind, since this might be dangerous.

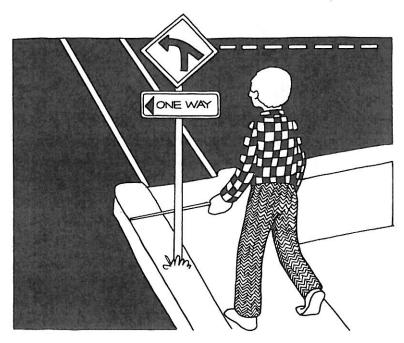


Use an umbrella, dowel, or some other piece of wood and see what cane travel is like. Tap the "cane" lightly on the ground in front of the foot that is about to take a step. After a little practice, you can develop an easy rhythm. Remember, though, that cane travel takes a lot of practice to be safe, so stick to the backyard.

clues and concentrate more on remembering them. You would make sure that things like your shoes or schoolbooks or toothbrush had a specific place so that you could find them easily. In a familiar indoor space it would be pretty easy to find your way around and get things done.

In an unfamiliar space, especially an outdoor space, finding your way around safely and easily would be a little more complicated. One way to find your way around would be to have someone who has eyesight

guide you. Using a sighted guide or being a sighted guide is fairly simple once you have had some practice, so this is a convenient way to do things if you are going someplace with sighted family or friends. But what if you want to go down to the store for a candy bar and no one else wants to go? What if you just want to go to the park and don't really want any company? What if you just have to get to the library and everyone in your family is too busy or too tired to take you? Depending on a sighted guide is just like depending on a sighted reader: Sometimes it's the best solution, and sometimes it's an inconvenience to everyone.



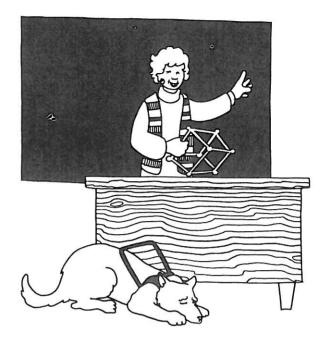
Can you see why this might be dangerous for a person who is traveling with a cane? How could you change the design to make it safe?

Two other methods of travel can give you much more independence: cane travel and the use of a guide dog. You have probably seen people who are blind using a cane or a dog to help them get around. Both of these methods take training and practice.

The cane is usually called a long cane or prescription cane. It got the name "prescription cane" because its length is determined by the individual user's height and length of stride. Generally, the cane length should be the same as the distance from the floor to the middle of the user's chest. The teacher who trains you to use the cane is called a mobility instructor. A mobility instructor also teaches you map-



What other senses is this person using?



Guide dogs go almost everyplace with their masters, even places where dogs are not usually allowed. One university student who is blind takes her dog to the cafeteria at mealtimes. The dog has become so well acquainted with the situation that it can tell the difference between the salad bar, the meal line, and other places in the cafeteria, and guide the student to one of them on spoken command!

reading skills and how to make the most use of other clues that might help you get around safely, like noises and odors.

The cane is used by swinging it in a gentle arc in front of you as you are walking. You tap the cane lightly on the ground in front of the foot that is about to take a step. In this way, you can check the area in front of you for obstacles before each step. Besides giving you information about obstacles in your path, the cane can also indicate if there is a step or curb or if

Obviously, even with all the skills and aids we have been talking about, there are some things you just couldn't do if you were blind, such as driving a car. Even doing the kinds of things we have talked about

would take a lot of training, practice, and patience. Some people might feel awkward around you anyway, afraid to use words like look, see, blind date, and blind alley, even though you would probably use such words yourself and not see (!) any cause for embarrassment. Some people might speak more loudly to you, even though it wouldn't be necessary. Some might even ignore you and speak to you only through other sighted people. You would probably find this

very annoying, even though you might understand that people usually act this way when they are feeling

embarrassed and awkward.



Many games are available in braille so that sighted and blind people can play them together.

Some people would probably try and help you too much. They might insist on helping you cross the street even if you could do it perfectly well on your own. You would have to think of ways to tell people nicely, but firmly, when you didn't need help. And you would have to think of ways to ask for help when you needed it, which might be even harder. Being blind would certainly make your life different, but it wouldn't necessarily make your life hopeless, boring, or lonely, unless you let it.

## 3

# What if you couldn't learn as fast as everyone else, no matter how hard you tried?

Some people don't learn as fast as everyone else. Sometimes the difference between how fast a person is learning and how fast most other people the same age are learning is very small and hardly noticeable. Sometimes the difference is very noticeable. The words most usually used to describe this difference in rate of learning are "mental retardation."

These words mean that a person's mental growth or development is slow, or retarded, compared to the average intellectual growth of most people. There are lots of causes of mental retardation, many of which are not very well understood. Most of the time, a person who is retarded has been retarded from birth. This could happen in a number of different ways. For



Mental retardation is sometimes accompanied by differences in physical appearance and can sometimes affect a person's physical movements. Movements that a normally developing child learns easily may come harder to a child who is retarded. Besides schoolwork being more difficult, learning about social rules may also be hard. Game rules and rules about politeness and public behavior may take a long time to learn and, for people who are very severely affected, may never be completely understood.

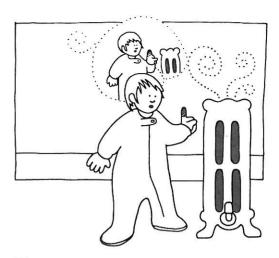
instance, retardation is sometimes caused by a genetic mistake. Or before the baby was born, something might have gone wrong with how the baby was growing inside of his or her mother. This is not the mother's fault. No one really knows why it happens. Retardation is sometimes caused if the mother contracts a disease such as German measles while she is carrying her baby. The disease can affect the growth of the baby inside the mother. Since this fact was discovered, this kind of retardation can usually be prevented by protecting expectant mothers from diseases that could harm their unborn babies. This is one of the reasons why it is important for expectant mothers to be under a doctor's care. Occasionally, retardation can be caused by an accident while a baby is being born. The baby may suffer oxygen loss or have a difficult birth for some other reason.

In all these cases, something either prevents the baby's brain from growing properly or damages the baby's brain severely enough to cause a general difficulty in learning things later on. This difficulty may be very slight or quite severe.

Before we talk about what learning problems you might have if you were retarded, let's talk about how people learn in general. You probably can't remember how you learned many of the things you know. You learned some things yourself by experimenting, and you learned other things by imitating what you saw grown-ups or other kids doing. You learned things because they were useful or fun for you to know, and you didn't learn anything you weren't "ready" to learn.

For instance, when you were little, everyone was





always telling you not to touch things that are hot, because they didn't want you to hurt yourself. You may have heard the word "hot" so often that you even knew how to say it, but you might not have understood the idea "hot" until you touched something that was hot and suffered the consequences. Then, it still may have been a while before you understood the difference between the "hot" that burns your fingers, the "hot" that is pleasant in your food, and the "hot" that means the weather is fine for swimming. And you would still have a long way to go before you discovered how to read, spell, and write the word "hot," how "hotness" is generated, how long it takes different things to cool off, that "hot goods" are things that have been stolen, and that "hot stuff" can be a compliment.

You can see that this process took a long time and a lot of learning, even though the idea of something being hot is a very simple and common one. In order for you to learn all about "hot," you had to be exposed to the idea and the word:

"Don't touch that! It's hot!" You had to be allowed and encouraged to imitate:

"You learned a new word today! Say 'hot' again for daddy." And you had to be allowed and encouraged to experiment:

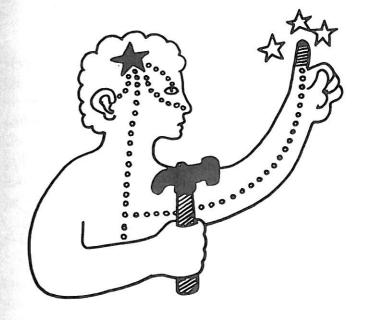
"Yes, you may help me cook dinner."

You also had to be allowed to repeat these experiences over and over again until you got things right. The first time you ever said "hot," it probably came out "ha."

You can also see that your ability to notice and pay attention to the things you see and hear, to remember them, and to use your memories later is very important to learning.

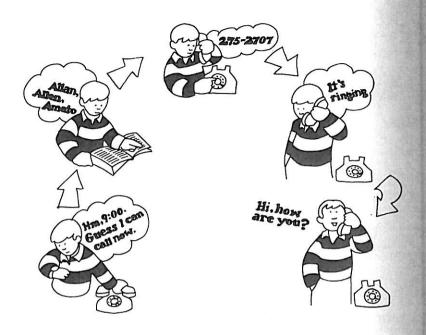
The brain and the nervous system connected to it are the most complicated parts of our bodies. No one





fully understands how the whole thing works, but we do know that the brain controls all of the learning process we have just talked about. The brain sorts the information that is gathered by your ears, eyes, nose, taste buds, and sense of touch, and sends commands through the nervous system that allow you to respond physically, verbally, emotionally, and intellectually to the things and people around you. The brain also remembers past experiences and links these memories so that you can use them in new situations.

Damage to the brain can seriously affect the learning process. It can cause the information that comes to you through your senses to be muddled and confused, so that you might have to take longer than most people to make sense of the data and respond to it. Injury to your brain can cause your memory to be



Did you ever really think about all the things you must know to complete a simple task? Look at all the things you need to be able to do to make a phone call:

To find or remember the phone number, you need reading skills and an understanding of alphabetization.

To dial the phone number, you need number recognition, some manual dexterity, and an ability to remember or copy the number.

To complete the call, you need to recognize and understand the ring or busy signal and know how long to let the phone ring before you decide there is no one home; if someone answers, you must know what to say and have the words to say it, and you must be able to understand the words that the other person says to you.

Besides knowing all of this, you will have to make other decisions as well. Do you know this person well enough to call? Is it too early or late in the day to call? Altogether, you will use physical, auditory, visual, social, memory, and receptive and expressive language skills to make a "simple" phone call.

very poor, so that you forget things you just learned. Or you could learn something and remember it, but be unable to apply the memory to new situations: If you learned that the tea kettle can be hot, you might always remember that tea kettles can be hot, but have to learn all over about frying pans. Sometimes these learning problems are slight, and sometimes they can be very severe.

#### If you were retarded, could you still learn?

If you were retarded, you could still learn—probably more slowly than other people and probably never as much as other people. How slowly you would learn and how much you could eventually learn would depend on how seriously you were affected. It would also depend on the other things that learning usually depends on: what you experience, what you find useful or fun to learn, and how much encouragement you get from other people.

If you were retarded, you would need more help to learn. You might have to have things broken down into small easy steps. To a certain extent, this is how almost everyone learns new skills or ideas, but for you, the steps might have to be especially easy at first, and you might have to repeat them one at a time, over and over, before you could do the whole task easily.

The words "mentally retarded" don't mean "stupid." They mean a slowness of development or progress. Someone who learns at a slower rate may do and say things that seem young for his or her real age, but that doesn't mean this person is stupid.

Your family, teachers, and friends would need to encourage you. Knowing that it was harder for you to learn new things than for others, they would want to make sure that they praised you when you learned something new, even if what you learned seemed like a simple thing to them. This would surely take a lot of patience, and the people around you would probably



Depending on the severity of retardation, there are a number of different living situations for a child when he or she grows up. Very severely retarded persons probably need to be in an institution, so that they can be safe and cared for twenty-four hours a day. For people who have gained some work and social skills, a home in the community with houseparents and a job in a sheltered working situation are possible. People with more skills can live in cooperative apartments with other retarded companions and a minimum of supervision and take a job in the community. Those with even more skills can often live by themselves with no supervision.

become frustrated with you sometimes, even when vou knew that you were trying your best. You would probably be frustrated with them sometimes too, especially if they asked you to do things that you didn't understand and maybe didn't like or couldn't seem to do, or if they treated you like a baby and didn't trust you to do things you thought you could handle.

For a long time, most people didn't believe that a person who was retarded could learn much. Most people also thought that people who were retarded didn't need love and fun and friendship in the same way that other people do. Some people might still have these ideas, but in most cases they're not true. People who are retarded can learn and can have the same emotional needs as everyone else. In spite of this, many retarded people have been placed for many years in huge institutions or state hospitals or schools where they did not always receive the educational help or emotional support they needed. These institutions were often crowded and understaffed. and their living conditions very poor. In some places this is still true, but many places are trying to set up other kinds of living situations that offer more independence and a more family-like atmosphere.

Three women I know lived in a big state institution for most of their lives. Recently, they were able to move into an apartment together. They all work and do their own cooking and cleaning. A few times a week a counselor comes to visit them to make sure everything is all right and to advise them about paying bills, seeing a doctor, or anything else they might need to know and never had a chance to learn before. They are also being tutored in reading and arithmetic after work. They get along with each other and have friends who they visit and go out with. When I have visited their apartment, I have really enjoyed myself. They are warm, kind, humorous people. There is no comparison between the lives they now lead and the ones they led in the institution. Many people wouldn't have believed that these women, who were for so long protected and cut off from the rest of us, could ever live on their own, but they can.

I have met many retarded people. Some of them I have liked very much, and some I didn't like much at all—usually for the same reasons I like or don't like people who are not retarded. Many people who are retarded have an honesty and warmth in their friendships that are often hard to find in other people. I don't know why this seems to be true, but I have often noticed it and enjoy my retarded friends very much.

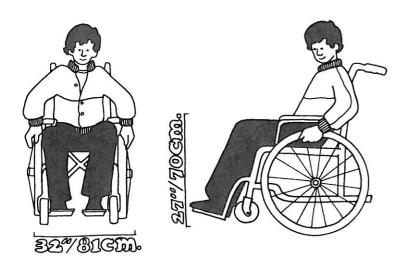


What if your legs didn't work right?

What if you were missing an arm or a leg?

#### What if your legs didn't work right?

You have probably seen people who move around with the help of a wheelchair, braces, walkers, or crutches all the time. Able-bodied people who aren't used to seeing these aids being used are sometimes frightened by them. They may also be frightened by the people using the aid because they look different from other people. That's a pretty natural response, but it doesn't help the person with the handicap much. Probably the two biggest problems for people who have a physical handicap are trying to get around in a world that was not made for wheelchairs

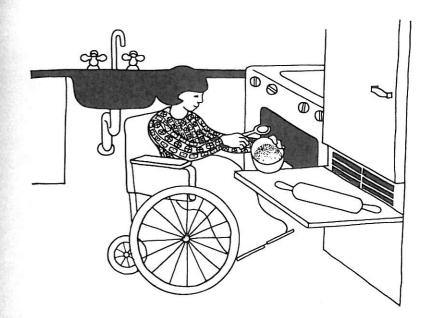


and braces, and dealing with the attitudes of ablebodied people toward handicaps.

Have you ever tried a wheelchair? They're lots of fun, especially if you don't have to sit in one all the time. If you ever have the chance to try one, you will probably find that it takes some practice and some strength to maneuver, and that you can't get to a number of places very easily or, maybe, not at all.

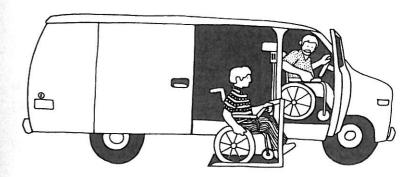
The next time you walk to school or to the store, think about what it would be like if you were traveling by wheelchair. Would you be able to get out of the house without help? How would you get up and down curbs to cross streets? Would there be railroad or trolley tracks to cross? Could you get over them? Could you get into the building you were going to?

Think about your own house. Using the diagram at the beginning of this chapter, think about the size of the wheelchair, and how tall you are when sitting down. Could you get through the doorways? Could



you get into the bathroom? Could you reach things you need in the kitchen? Is the kitchen big enough so that you could be in front of the refrigerator in a wheelchair, and still get the door open?

I've ridden in wheelchairs a number of times, but the time that made the biggest impression on me was when I went to a simulation workshop at a university. Students from the university who were physically





Braces are sometimes used to support and steady a person's legs. They can be made of metal or plastic. Some attach directly to your shoe, others strap

A walker is another device used to support and steady you as you walk.

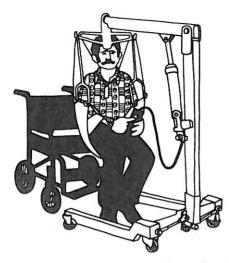
the building easily and get from floor to floor by elevator, moving around in a wheelchair was an uncomfortable experience because of the way other people made me feel.

The first polio vaccine came out when I was just beginning grade school. Until then, polio (officially called poliomyelitis or infantile paralysis) often reached epidemic proportions and terrified people because it could cripple or kill children. Everybody knew someone who had had polio. When the vaccine came out, doctors and nurses came to our school to make sure that everyone got an injection. Now polio vaccine is given orally in public health centers and doctors' offices, and there are many fewer cases because most children receive the vaccine.

People need to use wheelchairs for a lot of different reasons. Usually, their legs are paralyzed or very, very weak, or they are unable to control their leg movements.

Paralysis or extreme weakness can be the result of a disease like polio. This disease can attack the nervous system, which carries messages from your brain to your muscles. If the nervous system is damaged, messages from the brain can't get through, and the muscles can't move.

Some problems are the result of a genetic mistake. Something goes wrong while the baby is growing inside his or her mother. Muscular dystrophy is one of these problems. You can't catch it, you are born with it. It causes your muscles to be very weak, so that even if messages from the brain are getting through, the muscles are not strong enough to respond.



To gain maximum independence, someone who can't walk at all might use an electric hoist to get in and out of bed or the bathtub. The person would sit on the sling to the hoist all the time, and attach the sling to the machinery when she or he needed to be lifted.

Some paralysis is the result of an injury. The most important part of the nervous system is called the spinal cord. If the spinal cord is badly damaged in a car accident, a war, or a sporting accident, messages from the brain will not be able to get through to the muscles. Depending on the severity of the accident, a person's whole body, including arms and hands, could be paralyzed.

If you used a wheelchair, you might also be able to walk a little, but doing so might be very difficult and tiring for you. You might also need to use crutches and perhaps braces to steady yourself in order to move around on your feet.

Uncontrollable muscles can be the result of an injury to a baby just before or during birth. If the brain



People who have very little use of their arms or legs can still get around in an electric wheelchair.

or nervous system is damaged, messages from the brain to the muscles might come through in an incomplete or garbled fashion. This kind of problem is usually called cerebral palsy. This is a very general term that can refer to very slight movement problems, which require no special equipment to help you get around, or to very severe problems, which can badly impair a person's ability to control any or all of the muscles. Besides movement, cerebral palsy in its very severe state can affect other abilities such as seeing, hearing, and thinking. Even when it is not this severe, it may affect the mouth muscles so that a person whose thinking is perfectly clear may have difficulty speaking and being understood.

Little can be done to cure these problems. Unlike skin or bone, the brain, spinal cord, and nervous system cannot repair themselves or be repaired by doctors, although in certain cases surgery may improve a person's ability to move around. Physical therapy may sometimes also help to strengthen weak muscles or prevent unused muscles from wasting away.

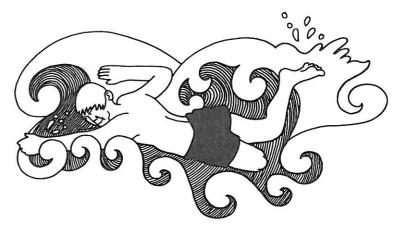
#### What if you were missing an arm or a leg?

If you had been born without an arm or leg or lost a limb through an accident or because of a disease, you would probably get an artificial limb called a prosthesis. Prostheses are custom made for individuals to replace lost or missing arms, hands, legs, and feet.

Prosthetic legs and feet look pretty much like real legs and feet. They are made by taking an impression of the stump to ensure that the fit will be secure and comfortable. Before you put the prosthesis on in the morning, you put a clean white cloth called a stockin-







My uncle has a "wooden leg." He lost his natural one a long time ago in World War I (World War I started in 1914!). He is pretty old now, but he is still very active. He likes to swim. Of course, he removes his leg before going into the water. At first, everybody stares—especially kids. Grown-ups always try not to stare and then they forget about it, unless they stop to think about how well he swims in spite of his missing leg.

prosthesis will have a hinge at the knee joint.

People who have had a lot of practice wearing a leg prosthetic can do almost anything that people with two real legs can do. They can ski, swim, go horseback riding, dance, and—to a more limited extent—run and climb. At first, these things take a lot of hard work and practice.

A prosthetic arm is slightly different, since it must be able to reproduce the abilities of the missing hand. This is usually done with a double hook at the end of the prosthesis. The hooks are hinged to each other, and the wearer can open and close them by means of a wire attached to a shoulder strap. When you move your shoulder, you apply tension on the wire that opens the hooks for grasping and holding things. Learning how to do this well takes a lot of practice





too. People who learn to use this device well can achieve very fine control of the hooks.

Although this kind of mechanical device is most widely used, people have been experimenting with all kinds of other ideas for improving arm prostheses. Some of these include attaching the prosthesis to the nerves in the stump, so that the wearer could feel hot and cold and pressure through it and maybe even be able to partially control the device with his or her own nerves and muscles.

If you were physically handicapped in any way, you would probably have a lot of things to contend with. People would certainly be curious about what was wrong with your body. They would stare sometimes and maybe ask you questions. Some people might also underestimate the things you could do, and that might be very frustrating. There would be things that you couldn't do and, if you were in a wheelchair, places that you couldn't go. You would have to work





Look for this symbol in and around public places. It means that the area is accessible to people in wheelchairs.

very hard to get your body to do the things you wanted it to do, and that would probably take up a lot of time and energy that you would rather be spending on other things.

Many people who have physical handicaps have become politically active over the past few years. They have been lobbying for new laws that will guarantee equal education and employment opportunities for people who are handicapped and that will require the designers and builders of housing, public buildings, streets, sidewalks, and parking lots to make these areas accessible by wheelchair. Many of these efforts have been successful, so you will be able to see curb cuts, ramps, and accessible bathrooms and parking spaces in more and more public places. As it becomes easier for people with handicaps to get out into the world, perhaps it will become easier for able-bodied people to accept them and not to feel awkward or afraid.

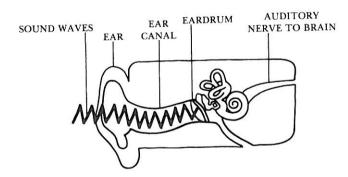
# What if you couldn't hear as well as everyone else?

If you couldn't hear as well as everyone else, people might say that you were hearing-impaired or hard of hearing. The sounds you could or couldn't hear would depend on how much and what kind of hearing you had lost.

There are different kinds of hearing loss. Loudness, or volume, is measured in decibels. A hearing loss that makes all sounds softer is called a decibel loss. To get an idea of what a decibel loss might be like, turn the sound on a radio or TV down low. You can understand what the voices are saying, even though they are muffled, but you have to listen very hard and pay very close attention. After a while, you would probably find this kind of listening very tiring.

An even commoner kind of hearing loss is called frequency loss. The word "frequency" refers to the pitch of a sound. With a frequency loss, you would hear some frequencies, or pitches, better than others. Most of the time, the sounds that are hard to hear are the higher frequency ones.

Since our language is made up of high- and lowpitched sounds, someone who has a frequency loss would hear all of some words, parts of some other words, and nothing of some words. Some sounds that are high pitched and might be missed or confused are s, sh, ch, t, th, p, and f.



Hearing is a rather complicated process in which vibrations are transmitted from the eardrum to the inner ear. The vibrations are translated into an impulse that is sent to the brain by the auditory nerve.

Hearing loss can be hereditary or the result of disease before or after a baby is born or the result of an accident. Basically, there are two types of hearing loss: conductive and sensory-neural.

Conductive hearing loss means that the sound vibrations are not reaching the inner ear. This can be because of a broken eardrum or because of malformations or obstructions of the ear, and usually means the person will have a volume or decibel loss.

Sensory-neural hearing loss means that there is a defect in the inner ear or the auditory nerve which transmits the sound impulse to the brain. Usually this means a frequency loss.



Kids with mild hearing losses may be accused of laziness or dullness when the hearing loss is really giving them problems. This is because a mild loss may cause "inconsistent" hearing. Whether the child hears or does not hear may depend on how much other noise there is, if the person speaking is looking at the child, or how tired the child is. How can a child who may never have heard any differently know that he or she has a hearing loss? Since the child obviously hears most of the time, why should a parent or teacher suspect a hearing loss?

My friend Fred has a hearing loss. He says that people with good hearing do not really understand what a hearing loss is like, even if they really think about it and try experiments like turning the sound on the radio down low. His wife once wrote a poem that said that Fred's hearing must be like hearing everything through a heavy velvet curtain. Fred said that was the best example anybody could give. When he says that nobody who hears really knows what a hearing loss is like, I think he is not only talking about how things sound but also about how he always feels a little unsure about what's been said and has to ask so many times a day, "I beg your pardon, what did you say?"

ball game was 61 to 58, our favor," could sound like, "A core a la nigh baketball game wa 61(?) 51(?) to 58(?) 68(?), our avor." Even though you might still be able to figure out what was being said, you can see how confusing that might be.

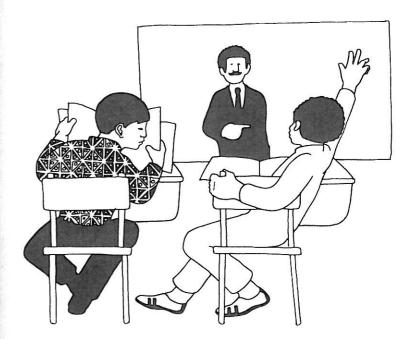
### If you couldn't hear very well, how would you know what was going on?

Another clue to what is going on around you is the shapes that people's mouths and lips make when they are speaking. Studying these shapes is called lipreading or speechreading. Even though it is hard to do, many people become very good at it.

To get an idea of what speechreading is like, say these words while looking in a mirror: pan, apple, box, shirt, most. You can see that these words all look very different from each other on your lips.

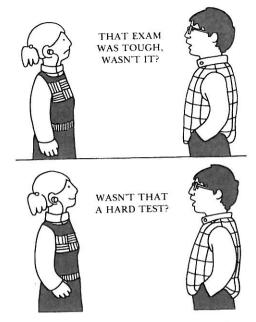
By studying these differences in school or in a special class, and with lots of practice, you could learn to understand as much as half of what people were saying even if you couldn't hear the words at all. And even though the words *tide*, *night*, and *dyed* look the same when spoken, you could assume that the confusing word in the sentence "Last \_\_\_\_\_ it rained" is *night*, not *tide* or *dyed*.

What is probably a bigger problem for lipreaders than words that look alike when spoken is the way people speak. People may talk with food in their mouths or with their hands near their lips. They may



If you weren't paying attention in school and your teacher said, "Please take out your science books and turn to page 64," and all you heard was "64," you could probably figure out what was said by watching the others around you. You would see them take out their books, and you could assume that "64" was the page number. This is one way that people with hearing impairments fill in the blanks in what they hear. By paying attention to other clues in their surroundings—like the expression on someone's face or what other people are doing and where they are looking—they can figure out what is happening even if they have missed some of what they were supposed to have heard. Naturally, this takes a lot of concentration.

not face the person they are talking to. They may be in the habit of moving their lips very little when they talk. Or, because they are trying to be helpful to a person with a hearing impairment, they may shout or make their mouth movements much bigger. None of these things would help you if you were trying to



There are lots of words that look alike on the lips and you can't always judge what was said by the context of the conversation. If you missed a lot or couldn't understand an important word, you would have to ask the speaker to repeat. If you were the speaker, you could repeat the sentence, and if the listener still didn't catch it, you could repeat it again using different words: "That exam was tough, wasn't it?" could be repeated as "Wasn't that a hard test?"

Some people have a talent for lipreading, and other people don't. People who are very good lipreaders are amazing. They may actually hear almost nothing of what you say and still understand you.

lipread. Try it yourself. Ask someone to talk to you by moving her or his lips but not making any sound, and see if you can understand what is being said.

If you couldn't hear very well, you might also use a hearing aid. A hearing aid amplifies, or makes louder, the sounds you hear. There are many different kinds of hearing aids. Most of them are quite



Hearing aids amplify sound. Many people who wear aids need amplification of only some sounds, but the hearing aid amplifies all sounds or most sounds. Therefore, some sounds that the wearer hears normally will be amplified. This takes some getting used to and presents some problems. In a noisy place, the amplification of background noise may be overwhelming. This explains why shouting at a person who is using an aid may not be helpful, and may even be uncomfortable for the person.

small and fit in or around your ear. Some are attached by a wire to a pack you put in your pocket or wear in a "harness" on your chest. You might wear an aid in one ear or in both ears.

To be fitted for a hearing aid, you would go to an audiologist to have your hearing carefully tested. After you got your aid, you would have to do some experimenting and practice to learn to use it. Even then, the aid would not make your hearing perfect. You would still have to pay attention to the things we talked about before, such as people's facial expressions. They would still be helpful to you if people faced you when they were talking to you and kept their hands away from their mouths.



An audiologist can tell you what kind of hearing loss you have.

When I first met my sign language teacher, Joe, he told us that he was deaf and heard no sounds. He spoke very well and there were few words that I couldn't understand. He also seemed to be able to understand me all the time, even though my sign language was pretty bad. Because of these things, I guess, even though I knew Joe was deaf, I didn't really believe it. Then one day, we were working in class and the telephone began to ring in the next room. Joe really didn't hear it. Someone signed "telephone" and Joe signed, "Let it ring." It didn't bother him at all, but all the hearing students in the class fidgeted until the ringing finally stopped.

By using a hearing aid, learning to lipread, and paying attention to other clues around you, you could pretty well make up for your hearing loss. You would probably still miss some things and have to ask people to repeat what they'd said. The situation would probably make you angry, frustrated, and tired sometimes, but it wouldn't hold you back from doing the things you wanted to do.

#### What if you couldn't hear at all?

You would probably be considered deaf if, even with a hearing aid, you couldn't understand speech. This doesn't mean that you would not hear anything at all, but that you would not understand spoken language with your hearing. Most people who are deaf have some hearing, and some people wear hearing aids to increase it, even though they still can't understand speech.

If you were born deaf or became deaf very early in life, you would not be able to acquire the ability to



Vibrations which most hearing people don't pay much attention to canbe an important source of information for people who are deaf. Musical vibrations can also be a source of pleasure.



speak in the same way that people who have hearing do. Hearing children learn to speak by copying what they hear and correcting themselves when they hear themselves make a mistake. If you had been born deaf, neither of these things would be true for you. Speaking is a skill that would have to be carefully taught to you.

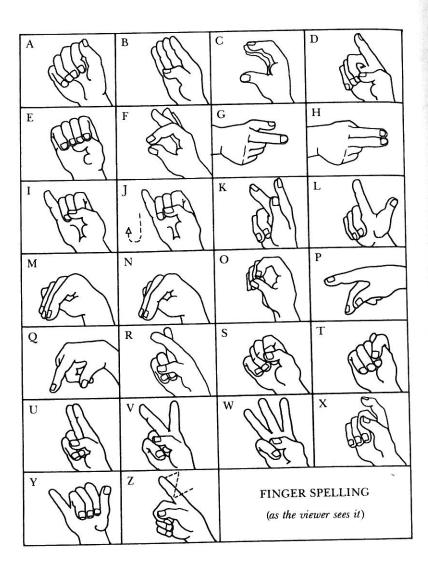
If there is a baby in your family right now, you might want to pay attention to how the baby is learning to talk. First the baby will learn to make easy sounds like "mmmmmmmm" and "aaahhhhhhh." Then the baby will learn to say a few words, then more words, then little sentences. It will take a long time, and sometimes only the people in your family will understand what the baby is trying to say.

If you had been born deaf, you would learn by copying speech just like everyone else does, but you would be copying what you saw and felt in addition to whatever you might be able to hear. You would probably have both speech lessons and lipreading lessons in school. Your teacher would show you how to move your mouth, tongue, and lips in order to make certain sounds, and how to use your breath to make them heard. Your teacher would listen to the words you made and tell you if you were making them correctly. This way of learning to speak would be much more difficult than the way that hearing people learn to speak. It would take a lot of work and practice, and, even then, your speech might be hard for other people to understand.

There are some devices that aid people who are deaf. Some of these are lights that go on when the doorbell rings, or when the alarm goes off in the morning. Another device is the TTY, which is essentially a teletype machine that replaces the telephone. You can type your conversation instead of speaking it, and the person you are calling receives the typed message on his or her machine. The biggest problem is that the person you want to call must have a machine too.

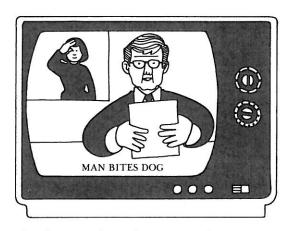
Something in the experimental stage is the idea of training "hearing ear" dogs. The dogs are trained to alert their masters to such sounds as the doorbell ringing or water boiling or a baby crying. The dog hears the sound, goes to the master, touches her or him, and then, when it has its master's attention, goes in the direction of the sound.

In addition to learning to speak, you might also learn to talk with your hands. This is called "sign language," or "manual communication." There are hand signs for each letter of the alphabet, and these can be used to spell out words and names. This is called "fingerspelling," and it looks like this:



There are also hand signs for hundreds and hundreds of different words. Some of these look like those at the top of page 59.





Sometimes sign language is used on TV. An interpreter, a person who translates spoken language into sign language, is shown in a corner of the screen. Or some programs may be captioned. This means that written words will flash on at the bottom of the screen, like in a movie that is in a different language. Look for both signed and captioned programs on TV.

For a very long time there has been a lot of disagreement about how children who are deaf should be taught to communicate. Some people feel that they should only be taught lipreading and speech, because not many hearing people know sign language, and because signing, since it seems to come more naturally to people who are deaf, will prevent them from learning to speak. Deaf people who can sign may think it's not worthwhile to learn speech. Other people feel that signing is a natural and beautiful way to learn language and, since speech and lipreading are so difficult to learn well, deaf children who can't use signs will be more frustrated in their attempts to communicate and will be further delayed in learning the meanings of words and ideas.

There are different kinds of sign language. American Sign Language (also known as Ameslan) does not use English sentence structure or grammar. For instance, the question, "Have you been to Texas?" would be asked in Ameslan by signing, "Touch finish Texas?" When Ameslan is translated directly into English, it sounds simpler, and in some ways it is. However, very complicated ideas can be expressed, just as they are in English.

Most of the signs used in Ameslan are also used in Signing Exact English. But this sign language does use English sentence structure and grammar, so that the question, "Have you been to Texas?" would be signed exactly as the question would be asked in English.

Lately, more and more people are beginning to feel that teaching *all* ways to communicate is the best method. This is called "total communication." Under this method, if you had been born deaf, your parents

would be encouraged to learn to sign and then to speak *and* sign to you all the time. In this way you would be helped from the start to understand and learn both means of communication.

The worst thing about deafness is the communication problems it presents. A person who becomes deaf before learning to speak has to work very hard to acquire the ability to speak and, even if successful, may always speak in a way that is difficult for others to understand.

An even bigger problem for the deaf child is understanding that there is such a thing as language and that it can be used to convey abstract ideas. For instance, it's easy to get across the idea, "Let's you and I carry this table over there" without any talking at all. However, to express "Let's go over to the furniture store on Fifth Street and buy a new table," might be quite difficult without language. For this reason, children who have been born deaf will probably be behind other kids in lots of language-related areas. This lag doesn't mean that deaf children are less smart or will never catch up with other kids. It does mean that they will have to work hard and that it will take longer for them to be able to communicate easily with other people, hearing or deaf, about things and ideas.

## 6

# What if you had trouble with your feelings?

You probably have had trouble with your feelings at one time or another. Everybody does. Everybody gets angry sometimes without meaning to, everybody gets depressed sometimes, everybody sometimes feels out of control over their emotions or their actions, everybody is scared sometimes—even when there doesn't seem to be a very good reason for being afraid. Although everybody has these kinds of problems sometimes, most people don't feel really angry or depressed or afraid or out of control very often. And when they do have such feelings, they can usually get over them pretty quickly.

If you had one or more of these feelings very often (or maybe all the time) and you couldn't seem to get over them, and if they interfered with your schoolwork and family life and your friendships with other people, you might have a real emotional problem.





If you had an emotional problem, it would probably fit into one of two very general categories: underinhibited or overinhibited. If you were underinhibited and acting in an aggressive manner, you might behave badly in school and at home a lot, you might get angry a lot, sometimes for reasons that wouldn't seem very important to other people, and get into fights and have a hard time making friends because of your ways of behavior. If you were overinhibited, you might be very shy, afraid a lot of the time, untalkative, and have a hard time making friends because you kept to yourself all the time and were so timid and withdrawn.

In either of these cases, you would probably be acting in different ways than most other people your age were acting. Your behavior might seem extreme to others and probably also worrisome and troublesome. Other people would wonder why you were acting in ways that seemed different and hard to deal with.

What's a "behavior"? The way we act or behave is based on a lot of different things. How we act depends on what we want, why we want it, how badly we want it, who we want it from, where we are, and who else is there. Let's say that you're on the playground with a bunch of kids after school and someone says, "I bet you can't jump off the top of those gym bars." Whether or not you decide to take the dare would depend on how afraid you are of getting hurt and how badly you want to impress the person who suggested it. If you were very afraid or didn't care what the person thought, or if the other people there thought the idea was dumb, you most likely wouldn't do it. Often, the reasons for doing or not doing something are not clear, unless you really think about them. Sometimes we

act in ways that surprise even ourselves. Sometimes we act in ways that don't get us what we want. Sometimes we act in ways that are different from how we really feel.

Nobody really knows why some people have serious emotional problems and other people don't. One way of looking at the problem is to think about the kind of experiences a person has had in the past. If your feelings had been very badly hurt by something or somebody, or if for a long time you had felt unloved or afraid or uncared for, these feelings might affect how you behaved later. Something very wrong in your life right now could also affect your behavior. For instance, if there were serious problems in your family or if someone you loved very much died or went away, that might be very difficult for you to handle emotionally. And sometimes, for some people, these kinds of situations can cause real problems.

Some people believe that there are physical reasons for emotional problems, or that a physical tendency or predisposition explains why some people have serious problems when confronted with difficult situations, and other people seem to be able to handle things pretty easily. This physical predisposition could be inborn or the result of diet or vitamin deficiencies. More and more people now believe that both experiences and a physical predisposition are necessary for serious emotional problems to arise.

We can only decide that a person is acting "differently" if we have an expectation of how he or she is "supposed" to be acting. The expectation we have about how a person might normally show anger could depend on a lot of things. For instance, it might depend on how old the person is: We think it's okay for a three-year-old to have a temper tantrum, but not a fifteen-year-old. It might depend on the kind of family that a person is part of: Some families raise their voices and slam doors when they fight. In other families, such behavior would seem very extreme. People in different countries might also have different ideas about how it is permissible to express anger.

So, sometimes, people disagree about whether they themselves or other people are handling their feelings well or badly. It's usually safe to say that someone who feels unhappy about inner feelings or external actions, but doesn't seem able to change to ways he or she would like better, would find it useful to see someone who can help deal with these problems-whether other people are worried about them or not.

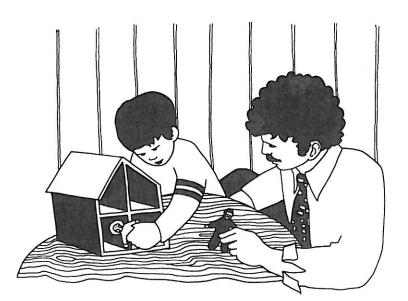
It seems pretty clear that all people have certain physical and emotional needs that must be met if they are to feel happy and secure. Most people who experience serious emotional problems feel neither happy nor secure. Physical needs like food and shelter are pretty obvious, but people also need love and a sense of belonging. They also need to feel that they are worthwhile people and that others think so too. It also seems clear that if these kinds of needs are not met—or if a person thinks they are not being met, even if other people think they are-emotional problems will result.

If you had a serious emotional problem, whatever the cause or causes, you might view the world differently than most other people your own age. You might have a hard time trusting people and believing that they meant well. You might feel that nobody liked you very much or even that people purposely wanted to make you unhappy and keep you from getting the things you wanted. So even if someone tried to help you or love you or be your friend, you might turn them away because you were afraid or you didn't really believe they liked you.

Feeling this way might cause you to act in ways that would seem strange to other people. If you were afraid that other people didn't like you, you might react to innocent jokes angrily, you might be very sensitive to anything that could be thought of as criticism of your work or your behavior. Or you might try to get away from everyone else and to ignore everything that was said to you. You might do these kinds of things purposely, to show people how upset you were or to show them that you really didn't care whether they liked you or not (even if you did care). Or you might do these things without even realizing what you were doing or what the consequences of your doing them would be.

A family can be very loving to a person who is having an emotional problem and still not be able to help him or her. A person who is having a problem doesn't necessarily come from a "bad" or uncaring family. The problem may just be beyond the family's control or ability to help.

If you were very unhappy and behaving in ways that worried or frightened your family and teachers and friends, they would want to help you. In some cases they might be able to help you themselves, but in many cases they might not. Your family might just



not know what to do, or you might be so upset by everything and everybody that you might not let them help you or believe that they could. You might view the people around you as part of your problem, and sometimes this could be true.

Therefore, it is often helpful to go to a person whose profession is to aid people who are having emotional problems. Many different kinds of professionals do this job, and they may go about it in a number of different ways.

Some of these professionals are psychiatrists, psychologists, social workers, counselors, psychiatric social workers, and psychoanalysts. All of these people have received different kinds of training, but all of them have been trained to help people with emotional problems. For simplicity, we will call all these professionals therapists. Therapists may work in hospitals, schools, clinics, or private offices. They may specialize in working with a certain kind of person, like a very young child, or with people with a certain kind of problem, like a wife and husband who are having trouble with their marriage and need help to get along better. A therapist may practice psychoanalvsis, behaviorist therapy, family therapy, humanistic therapy, group therapy, play therapy, or other forms of therapy. The therapist may use only one approach or combination of methods and theories.

In some cases, a child's home life may be so confusing and problematic that the wisest thing seems to be to find another home for the child to stay in. This might be for a short period of time, until other members of the family got things worked out, or it might be for a long period of time, whichever seemed best for the child.

Sounds pretty confusing, doesn't it? But, actually, most forms of therapy are based on talking. The therapist would try to get you to talk about the way you were feeling and acting and to think about your reasons for it. If you were acting in ways that made other people angry or upset, the therapist would try to understand and help you to understand why you behaved in the way you did and why this way of behaving made other people angry or upset. The therapist would also help you think about some other ways of behaving that might not make others angry or upset.

If you were too young or too shy or too afraid to talk about these things, the therapist might use stories or games to help you begin thinking and maybe talking about your feelings. The therapist might use puppets or dolls to help you act out how you were feeling.

If you were very upset with your family or if your family itself was in difficulty, your problem might be part of a bigger family problem. In that case, a therapist might work with your whole family to try and discover problems and offer some suggestions for solving them. The therapist might suggest some other ways for people to talk and act toward each other which might help the way the whole family was feeling.

Even today when many people see therapists for help in straightening out things in their lives, it's hard to talk about emotional problems. We have all thought about them and know that any of us could develop severe problems. We all have days when we think we must be "crazy." But most people will not suffer severe emotional problems that require intensive therapy or hospitalization. And most persons who do have severe problems can be helped to work them out.

Often, this kind of work with a therapist can be very useful. You might do it for a short time, like a few months, or a much longer time, like a few years. But in some situations just talking may not help.

Sometimes people become much more disturbed than what we have talked about so far. They may be so confused that they are not in touch with the people or things around them. This may happen for periods of time, go away for a while, and then come back again. Their behavior during these out-of-touch periods may appear totally irrational and possibly dangerous to themselves or other people. Generally, the family will put someone who is behaving this way into a hospital to receive intensive care. This is obviously a very frightening experience both for the person who is upset and for the people around him or her. Family and friends may feel that they have failed the hospitalized person, and the person may feel this way too. Family and friends may also feel afraid and angry and then guilty. The situation is a very difficult one to handle.

Like the other problems we have talked about, people cannot really understand what having an emotional problem is like unless they have experienced it themselves. People who are having a lot of trouble with their feelings may be difficult to deal with. They may do or say things that make you upset or angry or that you just don't understand. Since you are able to control your own actions easily, you may feel that there is no reason why everybody else can't. To a certain extent this is true: We are all responsible for the way we behave. But it is important to realize that a person with troubled feelings may be trying very hard to behave in ways that are acceptable and just not be able to do it. Such a person needs the support of the people around her or him in order to change.

If you were hospitalized, it might be for a short time, like two or three weeks, or for a much longer time. People who worked in the hospital would try to make you feel comfortable and not frighten you. They might establish very strict rules and routines for you to follow every day so that you would understand exactly what you were doing and would not become confused or find yourself in a situation you couldn't handle. You would probably see a therapist often.

If you were very severely disturbed, you might always have a hard time dealing with your feelings and problems. You might be able to learn to live with this difficulty very well, or you might always need some help—maybe a lot of help for the rest of your life. However, most people who have emotional problems are not at all that severely affected. Most people who have emotional problems are able to work through them and overcome them.



# What if you were smart, but you couldn't learn to read?

Imagine yourself in this situation: It is the first day of school. A teacher you have never seen before asks you to read a poem aloud. You are a poor reader and tell him so, but he asks you to try anyway. So you read very slowly, one word at a time, mixing things up, making mistakes, mispronouncing "easy" words. You can't explain why reading is so easy for everyone else and so hard for you. The class is getting restless, and the teacher is frowning. You are so embarrassed that, on top of everything else, you begin to stammer.

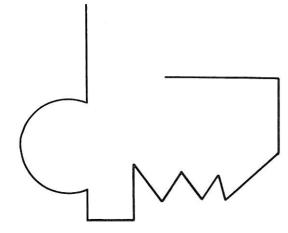
The teacher has just given some instructions, and you don't really know what he said. You think it began with "Take out your social studies books," but that's all you can remember. All the other students in the class are taking out their books, so you do too, and you try to look over the shoulder of the person in



front of you to see what page she's turning to. Suddenly the teacher is standing next to you asking, "Weren't you listening again?" He speaks in a soft voice to save you from being embarrassed again, but you are anyway.

You may have found yourself in one of these situations. You may have had a bad day at school because you weren't paying attention or hadn't studied or because you were nervous or excited about something. But some people face these kinds of situations every day, even though they may be very smart and have good teachers and be trying very hard. A way of talking about this kind of problem is to say that the person has a learning disability.

Learning disabilities come in all shapes and sizes, but they are all essentially problems in visual (seeing) or auditory (hearing) perception. Perception is a hard idea to understand. To say that someone's visual per-



Place a mirror on the line and a piece of paper over the pattern and try to trace it looking only at the reflection in the mirror. Can you do it? Sometimes teachers of learning-disabled kids have people try this to show how frustrating it can be to have a learning disability.



ception is poor wouldn't have anything to do with how good or bad his or her vision was, but would mean that the visual message the eyes were picking up was not being understood or remembered correctly in the brain. No one really knows exactly how this happens or why this happens or how to correct it.

Nobody understands what the differences are in the way things appear to a person with a visual perception problem either. But from the kinds of mistakes some learning-disabled people tend to make when they are reading or spelling, we can make some guesses.

Sometimes, letters seem to get reversed, especially such letters as *p*, *q*, *d*, and *b*, so that the sentence "I bet the boys will play their best today" might appear to be "I det the doys will qlay their dest tobay."

#### Dear Mother-

Started the Store several weeks. I have growed considerably I dont look much like a Boy now—Hows all the folk did you receive a Box of Books from Memphis that he promised to send them—languages.

Your son Al

This letter was written by Thomas Alva Edison at age nineteen. He had a terrible time learning reading and writing skills, but no one could accuse him of laziness or stupidity. Many other very famous people were probably also learning disabled—Albert Einstein among them.

Sometimes syllables or whole words may be reversed, so that the sentence "I was looking out the window at you" might appear to be "I saw looking tuo the winwod at you."

People with learning disabilities may also substitute phrases. For example, "I never once got there on time" might come out "I never got there once upon a time."

On the other hand, some people who have a learning disability might be able to read just fine but not be able to spell well. Or they might have terrible handwriting or a lot of trouble grasping oral directions. A learning disability can also affect people's memory, coordination, sense of direction, or ability to pay attention.

Probably the biggest problem in having a learning disability is that your parents, your teachers, and you yourself might not realize that you have it. It's an invisible problem and, since no one really knows what it is or what causes it, there is usually no reason to suspect that someone has it. So people think that you are just not trying hard enough or that you don't care or that you are doing poor work "on purpose." Since you may already be embarrassed by your failures in school, this kind of thinking wouldn't help much and, unfortunately, may cause you or some other kids to just give up and not try anymore.

Recently, many teachers have become aware of the possibility that a learning disability may explain poor work in certain areas from kids who seem otherwise to be bright and hard working. Lots of schools have

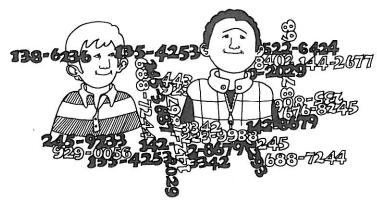


Sometimes people who have learning disabilities seem to have surprising skills that don't seem to make sense in terms of the things they have trouble learning. For instance, a child with terrible handwriting may have very good drawing skills, or someone who can't ever seem to remember what  $6 \times 6$  is may have excellent conceptual skills in mathematics.

started special programs for disabled learners, where they'll have a chance to master basic skills that come more or less naturally to other kids.

If your teacher or parents suspected that you had a learning disability, they would first want to make sure that your problem was not being caused by something else, like a hearing or eyesight problem or an emotional problem. You might have your hearing and eyesight tested. Because skills like reading are very complicated processes, you might be given tests that would help to decide exactly what part or parts of the process were giving you problems. For instance, could you recognize individual letters? Could you remember a sequence of letters so that you could recall whole words that you had learned before? Could you match the letter you see with the sound it represents? Could you blend the sounds that each letter represents into the sounds a word is made of?

Your inability to do any of these things would probably mean that you would have trouble readingeven if you could do everything else. Your teacher or a teacher who is specially trained to help kids with



When you are trying to remember a number, do you "see" the number in your mind, or do you "hear" it? People who "see" the number are probably better at learning things visually, and people who "hear" it are probably better auditory learners. Some people seem to be equally good at both. I am a better auditory learner and have a very difficult time remembering phone numbers. I recently discovered that if I made up a little song to go with the digits in the number, I could remember the song and then the digits, since they were the "words" to the song. I realized this one day when I was trying to remember my best friend's phone number and couldn't. However, I could remember the phone number of a store that sold televisions when I was five years old because the advertisement was set to music!

learning disabilities could find out what small problems are causing your larger problems, and then begin to help you.

Many of the methods used to help children with learning disabilities are really not so different from the methods used to teach anyone else. One difference is in the amount of time and attention that you, your teacher or tutor, and probably your parents would need to give. You might also take better advantage of the ways in which you seem to learn best, using them more than a regular class would. For instance, many people seem to learn better through one



Some people can study in the midst of chaos, others can't. I can study when it's noisy, but not if music is playing. Some learning-disabled kids have a great deal of trouble trying to concentrate. For them, even small distractions may make it impossible to get any schoolwork done.

sense than another. This might be particularly true for you if you had an auditory or visual perception problem. If you were able to take information in better through your hearing than through your vision, your teacher would want to take advantage of that. Often, people seem to learn better if they can get information through all their senses, including their sense of touch. If you were learning disabled, your teacher would want to take advantage of all your senses too, by giving you projects that involved all your senses—things that you could really get physically involved in. Your teacher might also use special materials such as raised letters, which you could feel as well as see.

Like a person who is blind, a person who is severely learning disabled in reading might need the help of a "reader" or records or tape recordings to do schoolwork.

Some children who are learning disabled seem to have a lot of trouble paying attention to anything long enough to really learn it. If you had this problem, it might be helpful for you to learn and study in a place with few distractions. Noises and movements that most other people have learned to ignore might be impossible for you to ignore.

Everybody uses little tricks to remember how to spell a word or multiply certain numbers or remember phone numbers. If you were learning disabled, you might have to depend on these kinds of helps more than most people.

One of the biggest problems you would face if you



A lot of people use memory tricks. You may remember how many days a month has by the rhyme "Thirty days hath September." Since I am a poor speller, I remember some words by songs (I still remember how to spell encyclopedia from a song that Jiminy Cricket sang on a Walt Disney program). I also use tricks (the initials of "A rat in the house might eat the ice cream" spell "arithmetic").

Some people remember their multiplication tables by this method. Make two fists with your thumbs sticking up. Pretend that "thumbs are sixes." To multiply  $7 \times 8$ , count to 7 on one hand and 8 on the other. Start counting from the stuck-up thumb, which is "six." The fingers sticking out are "tens"; count them. They make 50. The fingers still pointing in are multiplied by each other:  $2 \times 3 = 6$ . Add 50 to 6 and you have the right answer, 56.

I travel by landmarks. When people give me directions, I write them down carefully. Where there are turns, I ask for landmarks, so instead of knowing that I should turn right at a certain street, I know that I turn "at the big white church." Since I have some trouble knowing my left from my right, this seems to help.

These are all examples of the kinds of tricks everybody sometimes uses. If you were learning disabled, you might have to depend on such helps more than most people.

were learning disabled would be how you felt about your learning difficulties and about yourself. Sometimes you would probably find it hard to have to put in a lot of extra work just to keep up in school and to learn the things that seem to come fairly easy to other kids. Sometimes you'd probably think you were "dumb" or lazy.

But, even if you had a learning disability, you could still learn. It might take you more time and more effort to get the hang of some things, and you might never be a terrific reader or speller. You might always need to learn new things in a particular way, like listening to the news on the radio rather than spending a lot of time trying to plow through the newspaper. You might always need to depend on tricks to remember numbers or word spellings or travel directions. It would certainly take a lot of extra work and thought to keep up with your schoolwork, but having a learning disability wouldn't mean that you were lazy or "dumb" or that you couldn't learn.

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