

**JOHN HOLT** **HOW**  
**CHILDREN**  
**LEARN**

*5th Printing!*

By the author of **HOW CHILDREN FAIL**

# HOW CHILDREN LEARN

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*John Holt*



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## *Foreword*

*How Children Fail* described children using their minds badly. This book tries to describe children—in a few cases, adults—using their minds well, learning boldly and effectively. Some of the children described are in school; most are not yet old enough. It is before they get to school that children are likely to do their best learning. Many experts agree that this is so, though they differ about the reason. I believe, and try to show here, that in most situations our minds work best when we use them in a certain way, and that young children tend to learn better than grownups (and better than they themselves will when they are older) because they use their minds in a special way. In short, children have a style of learning that fits their condition, and which they use naturally and well until we train them out of it. We like to say that we send children to school to teach them to think. What we do, all too often, is to teach them to think badly, to give up a natural and powerful way of thinking in favor of a method that does not work well for them and that we rarely use ourselves.

What are the results? Only a few children in school ever become good at learning in the way we try to make them learn. Most of them get humiliated, frightened, and discouraged. They use their minds, not to learn, but to get out of doing the things we tell them to do—to make them learn. In the short run, these strategies seem to work. They

make it possible for many children to get through their schooling even though they learn very little. But in the long run these strategies are self-limiting and self-defeating, and destroy both character and intelligence. The children who use such strategies are prevented by them from growing into more than limited versions of the human beings they might have become. This is the real failure that takes place in school; hardly any children escape.

When we better understand the ways, conditions, and spirit in which children do their best learning, and are able to make school into a place where they can use and improve the style of thinking and learning natural to them, we may be able to prevent much of this failure. School may then become a place in which *all* children grow, not just in size, not even in knowledge, but in curiosity, courage, confidence, independence, resourcefulness, resilience, patience, competence, and understanding. To find how best to do this will take us a long time. We may find, in fifty or a hundred years, that all of what we think of as our most up-to-date notions about schools, teaching, and learning, are either completely inadequate or outright mistaken. But we will make a big step forward if, by understanding children better, we can undo some of the harm we are now doing.

This book is more concerned to describe effective learning than to explain it, or give a theory about it. In many places men are busy trying to find out what goes on in the brain, electrically, chemically, and otherwise, when we think and learn. Such research is interesting and may prove to be useful, but it has nothing to do with the aims of this book. We do not need to learn more about the brain, as an organ, in order to make schools better. We could make them a great deal better, knowing no more about the brain than

most people know right now. Thus it is interesting that men should be finding evidence that experiences are stored in the brain, in the shape of complicated molecules, like file cards stored in a file. What teachers and learners need to know is what we have known for some time: first, that vivid, vital, pleasurable experiences are the easiest to remember, and secondly, that memory works best when unforced, that it is not a mule that can be made to walk by beating it. It is interesting to read Wolfgang Köhler's theory, perhaps now held by many others, that electrical fields are set up in the brain when we perceive, think, and feel. This would certainly account for the fact that we think badly, and even perceive badly, or not at all, when we are anxious and afraid. But we don't need the explanation to know that the fact is a fact, and to learn from it that when we make children afraid we stop their learning dead in its tracks.

This book is more about children than about child psychology. I hope those who read it will come to feel, or feel more than when they opened it, that children are interesting and worth looking at. I hope that when they look they will notice many things they never noticed before, and in these find much food for thought. I want to whet their curiosity and sharpen their vision, even more than to add to their understanding; to make them skeptical of old dogmas, rather than give them new ones.

The human mind, after all, is a mystery, and, in large part, will probably always be so. It takes even the most thoughtful, honest, and introspective person many years to learn even a small part of what goes on in his own mind. How, then, can we be sure about what goes on in the mind of another? Yet many people talk as if we could measure and list the contents of another person's mind as easily, accu-

rately, and fully as the contents of a suitcase. This is not to say that we ought not to try to understand more about other people's minds and thoughts, but only that we must be very modest and tentative about what we think we have found out.

There's an old story about two men on a train. One of them, seeing some naked-looking sheep in a field, said, "Those sheep have just been sheared." The other looked a moment longer, and then said, "They seem to be—on this side." It is in such a cautious spirit that we should say whatever we have to say about the workings of the mind, and it is in this spirit that I have tried to write, and in which I hope others will read, this book.

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GAMES  
AND  
EXPERIMENTS

*August 9, 1960*

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I am sitting on a friend's terrace. Close by is Lisa, 16-months-old, a bright and bold child. She has invented a very varied pseudo-speech which she uses all the time. Some sounds she says over and over again, as if she meant something by them. She likes to touch and handle things, and is surprisingly dexterous; she can fit screws and similar small objects into the holes meant for them. Can it be that little children are less clumsy than we have always supposed?

One of Lisa's favorite games is to take my ball point pen out of my pocket, take the top off, and then put it on again. This takes some skill. She never tires of the game; if she sees me with the pen in my pocket, she lets me know right away that she wants it. There is no putting her off. She is stubborn, and if I pretend—which is a lie—not to know what she wants, she makes a scene. The trick, when I know I will need to use my pen, is to have an extra one hidden in a pocket.

The other day she was playing on the piano, hitting out more or less at random with both hands, pleased to be working the machine, and making such an interesting noise. Curious to see whether she would imitate me, I bounced up and down the keyboard with my index finger. She watched, then did the same.

*August 11, 1960*

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Yesterday I had the portable electric typewriter on the terrace. The older children were looking at it and using it. Lisa was busy eating an ice cream cone and, for a while at least, was not interested. When the cone was gone, however, she came to see what the others were doing, and soon asked, by sounds and signs, to be picked up and given a chance. So I sat her on my lap in front of the machine. Having seen me poke at the keys, one finger at a time, she did the same, and seemed pleased by what happened—something flew through the air and made a sharp click, and there was a general impression of activity and motion, and mysterious things going on inside the machine, things that she was making happen.

Now and then she would hit more than one key at a time, and keys would get stuck. I would then turn off the machine and straighten them out. After seeing me turn the rotary On-Off switch a few times, she tried to turn it herself, but her fingers weren't strong enough. When this happened, she reached down, took my right hand, brought it up to the switch, and made me work it. Soon we had a good game going. I would turn off the typewriter; she would try for a while to turn it back on; then she would take my hand and make me do it.

She also liked the carriage-return lever. Each time I

returned the carriage for a new line, she would take hold of the lever and give it one more push. Only rarely did she get excited and begin to slam and bang on the keys. Once she showed me that she wanted me to put the typewriter on the ground. I did so, but soon saw that this was a mistake; she wanted to climb on and even into it, to see what was really going on inside. After a bit of an argument and tussle I got it back up on the table. We were busy with all this for about forty minutes. Perhaps the attention span of infants is not as short as we think.

Today, with her elder brother more or less in charge, Lisa was in more of a banging mood, and often slapped the keyboard with her hands. Each time she did this, we turned the machine off and carefully unscrambled the stuck keys. Since this slowed up the action, I thought it might in time show her that it was not a good idea to slap the keyboard. But it was also interesting for her to watch us unstick the keys. After this had happened a number of times, I suggested to her brother that next time she piled the keys up we turn off the machine and just wait to see what she would do. We did so. She poked a key or two, but nothing happened. Then, seeming to notice that the machine was not making its usual busy hum, she reached up herself and pulled back the stuck keys.

*July 24, 1961*

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This morning Lisa bent down to pick up a balloon, and as she did a puff of wind coming through the door blew the balloon across the floor. She watched it go. When it stopped, she moved close to it, and blew at it, as if to make it go farther. This surprised me. Can such young children make a connection between the ability of the wind to move objects, and their own ability to move them by blowing on them? Apparently they can.

One game almost all babies seem to like is to have you blow across their hands or fingers, moving your head from side to side so that the airstream moves back and forth. They smile; then after a while they begin to investigate where this mysterious stuff is coming from, and try to poke a finger into your mouth. They find it interesting that you can get a similar effect by fanning them with a fan, or piece of cardboard.

Later, Lisa walked round and round the balloon, singing, more or less, her own version of "Ring-around-a-rosie." As she sang it, she began to change it, until before long it had become an entirely different song. Much of what she says, sings, and does, is like this; it starts out as one thing, and gradually turns into another. A musician might call it variations on a theme.

Many other little children I have known love to tell

endless stories and sing endless songs. Sometimes the song is about what they did or would like to do. A mother told me that her four-year-old boy, whose seven-year-old sister was in school, began one day, alone in his room, to chant a song about, "I wish I had a sister, who didn't have to go to school, and would do everything I say . . ." Often the song is nonsensical, words and nonsense syllables; sometimes sense and nonsense are mixed. Many children like to play a game with a grownup, in which each takes turns adding something to the song. It is not as easy as it sounds. Trying to make up words and music at the same time is a strain on the imagination, and what comes out is usually no better than what the child does, and, as a rule, very much like it.

These are good games, and we might do well to encourage them, pay attention to them, take part in them, both at home and in school.

Children first going to school do a lot of singing, to be sure; but they all sing the same songs, taught and led by the teacher, and the aim is to get them "right," not to make up something new. Some children like this and get good at it; for others, it just becomes one more of those things that you have to do in school—compulsory fun, as so much of early school is. Many of these children become non-singers, a needless waste. The work of Carl Orff and others who have used his method of instruction suggests that when children are given many opportunities to improvise, to make up their own chants, rhythms, and tunes, their musical and verbal growth can be very rapid.

*July 25, 1961*

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Cries from the living room announce a new collision between Lisa and the institution of private property. She is interested in everything she sees, wants to examine it, handle it, test it, take it apart if she can. Naturally, she has no sense of what is valuable, or fragile, or dangerous. Having seen me plug in the electric typewriter, she was eager to plug it in herself, and fiercely resented being told that she was not to fool around with electric sockets. The other day she managed to turn on all the burners on top of the stove, fortunately far enough so that the pilot light was able to light them. She did not like being told to leave the stove alone. It's impossible for her to see why she should not be allowed to touch what everyone else touches. When she takes things, she never thinks to put them back where she got them—even if she could remember where she got them.

There is no very good or easy answer to this problem. Every day we find ourselves saying, "No, no, don't touch that, it's too hot, it's too sharp, it will hurt you, it will break, it belongs to me, I need it." Each time she feels, naturally, that we are attacking her right and need to investigate every part of the world around her so that she may make some sense out of it. Everyone else touches this; why can't I? It is easy to see how too much of such treatment could destroy a child's curiosity, and make him feel that the world, instead

of being full of interesting things to explore and think about, is full of hidden dangers and ways of getting into trouble.

We try to solve the problem by giving Lisa toys of her own, and telling her to leave other things alone. This doesn't work very well. For one thing, the toys aren't interesting enough. For another, she can't remember, even if she wants to, what she is free to touch, and what not. Most important, it is the fact that older and bigger people use various objects around the house that makes these objects so interesting. Like all little children, Lisa wants to be like the big people, and do what they do. When dishes are being washed, she demands to be allowed to help. When cooking is going on, she wants to cook; when lemonade is being made, she wants to help make it. And she will not be put off by obviously phony substitutes.

It is hard not to feel that there must be something very wrong with much of what we do in school, if we feel the need to worry so much about what many people call "motivation." A child has no stronger desire than to make sense of the world, to move freely in it, to do the things that he sees bigger people doing. Why can't we make more use of this great drive for understanding and competence? Surely we can find more ways to let children see people using some of the skills we want them to acquire—though this will be difficult when in fact those skills, like many of the "essential" skills of arithmetic, are not really *used* to do anything. Who, in real life, divides one fraction by another?

Meanwhile, at home, we should try to keep out of reach, and even out of sight, valuable or dangerous objects that we don't want children to touch. At the same time, we should keep on hand a good many objects cheap and durable enough so that a child can touch them and use them; we



shouldn't have to worry if they get broken. Maybe certain ordinary household objects would be good presents for small children; an eggbeater, a saucepan, a flashlight. After all, it doesn't make much sense, in a family that will later spend tens of thousands of dollars on the child's education, to get upset, and to upset him, because he may ruin something worth twenty-five cents. I have so often seen people in drugstores or supermarkets, where there is very little that a child could spoil or break, and where anything he did break would hardly cost over a dollar, get all upset because he is touching, feeling, picking up the various things he sees. Why not? This is how he learns about them. If he moves something out of its proper place, it's easy enough to put it back.

It is probably a mistake, anyway, to assume that whatever little children touch, they will destroy, and that we must therefore keep them from touching anything that is not theirs. This dampens their curiosity and confidence. More than that, it probably makes them too fiercely possessive of what is their own. We should try instead, I think, to teach that respecting property does not mean never touching what is not yours, but means treating objects carefully, using them as they are meant to be used, and putting them back where they belong. Children are perfectly able to learn these things; they are less clumsy and destructive than we suppose. And it is only by handling and using objects that children can learn the right way to handle them. One of Maria Montessori's many valuable contributions to education was that she showed that very little children could easily be taught to move, not just exuberantly, but also deftly, precisely, gently.