



**Paul Chance:** Most of us have heard about autistic children, but many of the things we hear are conflicting. I wonder if you could start off by describing the

characteristics of autistic children.

**Ivar Lovaas:** Autistic children are severely disturbed. People seem to be no more than objects to them. They show no signs of warmth toward others; they do not appear to enjoy being held. They don't play with other children. Their parents often think that they are deaf because they don't respond to noise or verbal commands. Sometimes parents think the child is visually impaired because they walk into objects as though they don't see them, and because they don't look into your eyes. Many of these kids do not have speech or have only a very rudimentary kind of speech. Some of them have echolalic speech; that is, they simply repeat what you say to them. For example,

this, but I seriously doubt that children who are normal for the first two years ever become autistic.

**Chance:** You think then that it is congenital?

**Lovaas:** Yes, at this point, the data strongly favor the view that autism is present at birth.

**Chance:** What happened to the idea that the parents caused autism? It used to be said that some parents were schizophrenogenic, that they made their children autistic. Do they?

**Lovaas:** No. In fact, I can tell you that the parents that we work with are very nice people. We get to know the parents as people, and when you do that you find that there is no reason to believe that they produce autism. But a lot of parents still think that it must be their fault somehow. They have heard that the parents of autistic children do not express love adequately, so they bend over backwards to be loving. What they get for their trouble is even more bizarre behavior—the child smears his feces on the walls, bites his par-

way to look at the job of helping autistic kids is to see it as a matter of constructing a person. You have the raw materials, but you have to build the person.

**Chance:** That sounds like a real test for behavior modification.

**Lovaas:** It is a test for psychology. What we can do with autistic children today tells us a great deal about the status of psychology.

**Chance:** Why is what we can accomplish with an autistic child a measure of the sophistication of the science?

**Lovaas:** Normal kids give you too much for free. They really do. What you can do with a normal child is no test of psychology or of parents. It is only when you run into an autistic child where things don't happen that you really find out what you know about human behavior. When language doesn't develop, it forces you to identify just what goes into the development of language. When kids don't develop warmth for other human beings, it forces you to find out just how emotions are acquired.

## “After you hit a child, you can't just get up and leave him; you are hooked to that kid”

A conversation with Ivar Lovaas about self-mutilating children and how their parents make it worse.

by Paul Chance

if you say, “What's your name?,” they answer, “What's your name?”

**Chance:** Many of these characteristics would apply to retarded kids. But autistic children are bright, aren't they?

**Lovaas:** That is a difficult question to answer. In one sense autistic children are retarded. After all, many of them don't speak, are unable to dress themselves, and are not toilet trained. So they are retarded in the sense that they are far behind their age group in the kinds of things they can do. The reason that they are not classified as retarded is that they are presumed to have the potential for normal intellectual functioning and something else interferes. This is only guesswork though. The point is that whatever you call them, you have a severely disturbed child with a lot of very bizarre behavior.

**Chance:** Do some children develop normally for a while and then become autistic?

**Lovaas:** I doubt it. What probably happens is that the parents do not recognize that there is anything wrong. But when the child reaches two years or so, the behavior is so bizarre, so different from other children of that age, that you can't fail to notice it. There are no hard data on

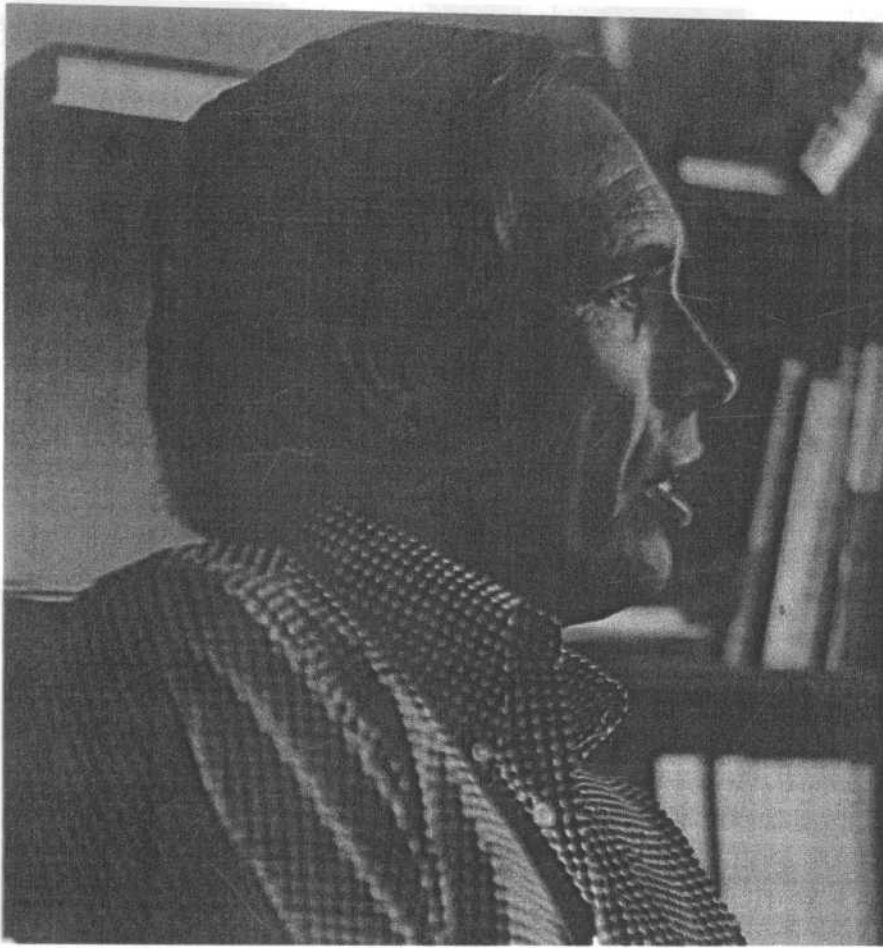
ents, and has violent tantrums. The parents are afraid to punish them for these acts because they have been told that the child behaves this way because he feels unloved, so if you punish him you are only making him worse. But this is all nonsense. And this theory has made a lot of parents feel terribly guilty and made the autistic child get worse instead of better.

Instead of blaming the parents, excluding them from treatment, and alienating them from their children, we bring the parents in on the treatment process. We show the parents how to reward appropriate behavior, how to punish inappropriate behavior, how to shape up speech, and so on. The parents become the principal therapists and we become consultants to the parents. When they have a problem that they can't solve for themselves, we try to work out a solution. But in a real sense the parent becomes a child psychologist. And this is great for the kids; without the cooperation of the parents, we could accomplish very little. You see, you start pretty much from scratch when you work with an autistic child. You have a person in the physical sense—they have hair, a nose and a mouth—but they are not people in the psychological sense. One

**Chance:** But that makes autistic children the model for normal people. If you demonstrate that the autistic child acquires language in a particular way, that doesn't necessarily tell you how a normal child acquires language.

**Lovaas:** Well, no, that's true. But if you program language into an autistic child, and that language looks like the language of a normal child, then it is reasonable to believe that other kids acquire language in a similar way. You haven't proved it, but the evidence is consistent with that interpretation. And one of the things that autistic children have taught us about normal children is that a child is a reflection of his environment. He is his environment. And since there are many different environments, there are many different kids within any one child. Within one body there are many different children crawling around. One of the things that you learn from working with these kids is that when you get the right kind of control over their environment, their behavior changes markedly. It is amazing; we change the environment a little bit and they begin to look normal.

The kind of environment that we provide for most kids is the one that requires



## Poet With a Cattle Prod

A Sketch of Ivar Lovaas

Ivar Lovaas is a poet who keeps a paddle in the corner of his office and shocks small children. Yes, I said poet. His radical treatment causes outrage. At one dinner meeting, tired of hearing the critical winds blow, he stood up and raised his salad bowl. "There are more brains in this salad," he said, "than in the people seated at this table." In less heated moments he can slip toward softness. His voice thickens when he recalls growing up in Norway.

"In 1939 Oslo was like a strangely beautiful and unrealistic dream. We used to take the train up into the mountains into this fairyland, all white and shiny, beautiful diamonds everywhere. Then one morning a voice came on the radio and said that Norway had been *occupied*. I remember going to school that morning and the teachers were standing there, crying, and they told us to go home. That afternoon, that very afternoon, the green-colored men in their funny helmets crawled all over my valley. They were like aphids in a Garden of Eden."

The war interrupted his education for four years, but Ivar received a high-school diploma anyway. There was no way for him to finance a college education in Europe, so he applied for and won a scholarship to Luther College in Iowa. He slept three or four hours a night, completed his bachelor's degree in one year, and then looked about for something else to do. "I was sitting down in the dorm one night looking at a newspaper and I saw a picture of Seattle. It looked pretty because of all the mountains around it. The janitor came by and I asked him if he had ever been there. He said he had and that it was nice. The next day I borrowed \$50.00 from the school's loan office and took a Greyhound to Seattle. I arrived there about three in the afternoon and I had about \$1.50 left. I bought a hamburger and a milk shake and that took my capital down to about 60 cents. Then I went to a street near the university and I just knocked on doors." After a few tries he found a family willing to exchange room and board for household chores.

graduate study in the department of psychology at the University of Washington.

After an enthusiastic start, Ivar lost patience with psychology's preoccupation with erudite theoretical issues. Over the years his tolerance for such academic calisthenics diminished still further. "I was at a symposium recently listening to some psychologists and suddenly I realized that they were like Nero: they were playing fiddles and the world was burning. When you see a war and how horrible it can be to people, you want to do something about it. You want to be relevant. You want to do something about this world."

Ivar is doing something about the suffering he sees in children. It would be easy to believe that he shocks them because he enjoys it, that he gets pleasure out of inflicting pain. Nothing could be further from the truth. He uses punishment with considerable reluctance, because he genuinely loves children. He shocks them because the alternative is to tie them down to a bed and let them vegetate. And that, he is convinced, would be truly sadistic.

But punishment is not enough. Ivar believes that much of what is human about you, even your awareness of your self, is a product of the love you have received from others. So once you have taken it upon yourself to punish a child, you must then make a concerted effort to "load him up with love." Perhaps children are especially important to Ivar because they give him some of the zest for life that adults find so difficult to hold onto. "When my kids were little, about two years old and one year old, I would get up in the morning and I would feel like a grump, you know. And so I would stumble out of bed and into their bedroom and open the door and here is this kid with a big fat grin. Happy as hell, you know. Like 'it is morning, a beautiful day. Let's go!'"

To free an autistic child from his compulsion to self-mutilate, to help him communicate with other people, to help him feel love for others and from others, amounts to giving him his humanity. It frees him from himself and in the process unleashes the freshness and enthusiasm that is a child's gift to adults.

Ivar has a poet's sensitivities, a poet's preoccupation with existential problems, and a poet's love of humanity. But unlike most poets, he is dedicated to having an impact on the world around him. He is a poet who is not afraid to get his hands dirty.

—Paul Chance

the least effort and still gets the job done. But autistic kids are different. The average or typical environment will not work for them. The same thing is also true of retarded kids, and of children who are blind or deaf. But we don't simply say that the blind child is hopeless and give him custodial care and forget about him. We change his environment so that being blind is less of a handicap. Autistic kids are like blind kids. If a blind child is not given a special environment, if you try to treat him in the same way that you treat sighted children, he will look autistic: he will rock himself a lot, injure himself, and so on. But if you handle things correctly, you can make a blind or deaf child look very nearly normal. All you have to do is figure out how to make his environment instructive. That's what we do with autistic children.

**Chance:** A blackboard is not a useful part of the environment of a blind child, and a radio is not a useful part of the environment of a deaf child. And autistic kids are missing something which likewise prevents them from developing in an ordinary environment. What are they missing?

**Lovaas:** Right now it looks as though they have overselective attention. Give an autistic child more than one kind of sensory input and he will pick up on only one of them. Attention is always selective, but with these kids it seems to be extreme. For example, if you tell an autistic child to open the door, he may not hear the words at all; he may focus so intensely on the movement of your lips that he will not hear the sound of your voice. It is very often the case that if they see you they do not hear you, and if they hear you they do not see you. It is as though they receive input on only one channel at a time. We don't know for sure if this is the deficiency that is responsible for autism, but the evidence looks very good.

**Chance:** Don't they also acquire certain behaviors that interfere with learning?

**Lovaas:** Yes. They have tantrums, and believe me they are monsters, little monsters. And they spend a lot of time in repetitive behaviors that we call self-stimulatory behaviors. For example, they rock themselves back and forth or they spin around in a circle. All kids have tantrums and engage in self-stimulatory behaviors, but with autistic kids it is extreme; they can do it for hours. Before you can get very far with developing normal social behaviors, you have to eliminate these aberrant behaviors. Some of them will bite other people or injure themselves. You can't teach a child to speak if he is injuring himself or biting his teacher. They don't bite their teachers very often in our clinic.

**Chance:** How do you get rid of behaviors like that—biting a teacher?

**Lovaas:** Spank them, and spank them good. They bite you and you just turn them over your knee and give them one good whack on the rear and that pretty well does it. This is what we do best; we are very good at controlling these kinds of behaviors. This is also the way we handle self-destructive behavior. In fact, self-destructive behavior was the problem that we first started on. We had these kids that we tried to teach and they were so loaded down with self-destructive behaviors that we couldn't do very much with them. Some of these kids were severely self-mutilating.

**Chance:** When you say "self-mutilating," just what do you have in mind?

**Lovaas:** Well, there were some kids who would bite their fingers off. One kid had actually bitten off a finger—I think it was the little finger of her right hand—



**"All kids have tantrums and engage in self-stimulatory behaviors, but with autistic kids it is extreme; they can do it for hours."**

down to the second joint. She had started to chew the little finger of her left hand and had severe biting wounds all over her hands. She also pulled her fingernails out with her teeth. Another child chewed most of his right shoulder off. He would put his head sideways, lift his shoulder toward his mouth and chew his shoulder. He had actually chewed enough of his shoulder away that you could see the bones. We had other kids who broke their noses with their knees. Others would bang their heads against the wall or against the edge of a metal filing cabinet. Not all autistic kids engage in self-mutilative behavior but many do. The treatment used to consist of putting them in full restraints. We saw kids who were 10 years old who had been in restraints for six or seven years.

**Chance:** By "put in full restraints," what do you mean?

**Lovaas:** Bound to a bed. The child would be bound to a bed spread-eagled so that he could not get to himself. We discovered how to handle self-destructive behavior in a very accidental way. When we first started to treat autistic kids we began with only one child. I would pick up Beth at her parents' house at 9:00 in the morning and I would drop her off at three, so we had her for about six hours a day, five days a week. You spend that much

time with someone and you get to know them pretty well. In fact, I saw more of her than I did of my own children. Well, what happened was that she ceased to be a patient for me—she was simply a child, just like one of my own children.

Beth did very well in some ways; she learned very quickly. But she was also very self-destructive. One day I was talking with her teacher and Beth began hitting her head against the edge of a steel cabinet. She would only hit steel cabinets and she would only hit them on the edge because, you see, she wanted to draw blood. Well, I think because I knew her so well, I just reacted automatically, the way I would have with one of my own children. I just reached over and cracked her one right on the rear. She was a big fat girl so I had an easy target. And I remember her reaction: She turned around and looked at me as if to say, "What the hell is going on? Is this a psychiatric clinic or isn't it?" And she stopped hitting herself for about 30 seconds and then, you see, she sized up the situation, laid out her strategy and then she hit herself once more. But in those 30 seconds while she was laying out her strategy, Professor Lovaas was laying out his. At first I thought, "God, what have I done," but then I noticed that she had stopped hitting herself. I felt guilty, but I felt great. Then she hit herself again and I really laid it on her. You see, by then I knew that she could inhibit it, and that she would inhibit it if she knew I would hit her. So I let her know that there was no question in my mind that I was going to kill her if she hit herself once more, and that was pretty much it. She hit herself a few times after that, but we had the problem licked. One of the things that this taught me was that if you treat these kids like patients, you are finished. The best thing you can do is treat them like people.

So then we sort of specialized in treating self-mutilative kids. We took in some of the worst cases that the state hospitals could provide. We used electric shock and spanking as punishment. The procedure was simple—we just set up a contingent punishment for self-mutilative behavior.

**Chance:** When you say "contingent punishment" you mean that you shock them only when they self-mutilate.

**Lovaas:** Right. We stay close to them and when they hurt themselves we scream "no" as loud as we can and we look furious and at the same time we shock them. What typically happens is this—we shock the child once and he stops for about 30 seconds and then he tries it again. It is as though he says, "I have to rep-

licate this to be sure." Like a scientist. He tries it once more and we punish again and that is pretty much it. So we can cure self-destructive behavior—even longstanding, self-destructive behavior—in a matter of minutes.

We know the shocks are painful; we have tried them on ourselves and we know that they hurt. But it is stressful for the person who does the shocking too. You may have used shock successfully with a hundred kids, but you are still apprehensive about it; you always think that maybe this kid will be the exception; maybe you will hurt him and it won't do any good. But then when you shock him and you see the self-destructive behavior stop, it is tremendously rewarding.

I remember a kid named John who had been in restraints for years. We took him out of restraints at 9:00 a.m. He hit himself in the face and we shocked him. He hit himself a few more times and each time we shocked him; that was the end of his self-injury. Then he just sat in a corner until about 9:30, when he got up and looked out the door into the hallway. Then he darted back to his corner. About 10:00 he walked over to the door again and then returned to his corner. About 10:15 he moved around the room again, but this time he didn't run back to his corner. By 10:30 he actually stepped out into the hallway and by 11:00 he moved about the room freely.

Then he discovered several nice things. He had been in restraints for so long he had forgotten how good it feels to scratch yourself. So he spent about half an hour scratching himself—his stomach, his butt, his head, his back. Sheer luxury. Then he jumped up and down several times to stretch his muscles. About 12:00 we decided to give him a bath. You can't give the severely self-destructive child a bath because he will hit his head on the bath tub and when the blood hits the water it looks awful. So they just get sponged down in bed. Now that John was no longer self-destructive, he could have a real bath. He loved it. He lay completely submerged in the water with his eyes open, just loving it. After the bath we gave him food and he fed himself; in restraints he had to be spoon-fed. So you see, after we got rid of the self-destructive behavior, John could start to do things he hadn't done for years. He had a ball. It is because of experiences like that that I can't wait to get at self-destructive kids.

**Chance:** How do you avoid having the child become afraid of you?

**Lovaas:** That is a good question. No one punishes who isn't prepared to devote

a major part of his life to that child. Nobody punishes a child who doesn't also love that child. As soon as you suppress self-mutilation you start building appropriate behaviors. You reward the child for doing other things instead of hurting himself.

**Chance:** If he is not busy banging his head against the wall, he can be doing other things.

**Lovaas:** Oh, yes. And if he doesn't, you prompt him. But the nice thing about punishment is that it not only gets rid of the self-mutilative behavior, it also affects the adults who administer the punishment. Once you lay your hands on a child it morally obligates you to work with that child. You see, that is one of the reasons that people stay away from the use of punishment—they don't want to commit themselves. After you hit a kid you can't just get up and leave him; you are hooked to that kid.



**"If you treat these kids like patients, you are finished. The best thing you can do is treat them like people."**

**Chance:** What has always seemed peculiar to me is that you can stop a child from hurting himself by punishing him. The way these kids injure themselves you'd expect them to *enjoy* being shocked.

**Lovaas:** I know. I am not sure exactly why it works, but it works. What typically happens is that the child hits himself and someone comes in to love him and take care of him—and he knows this is what happens. See, we are all made of this kind of wool; a child in pain is a child that we attend to and love. It just seems natural to us and a kid soon learns that this is the way it works. The same thing happens, perhaps less clearly, to parents with normal children. Sometimes parents will only pay attention to their children when they misbehave. So, what happens is that the child misbehaves a lot and gets lots of attention. The parents don't see that what they are doing is rewarding bad behavior. When an autistic child injures himself and you give him lots of attention, you are rewarding him for injuring himself. You are actually teaching him to self-mutilate. What you have to do is to give him plenty of love, but for good behaviors, not for self-mutilation. The theory that says that these kids hit themselves because they feel they are unlovable dictates that you give them lots of love, especially when they injure themselves. The theory

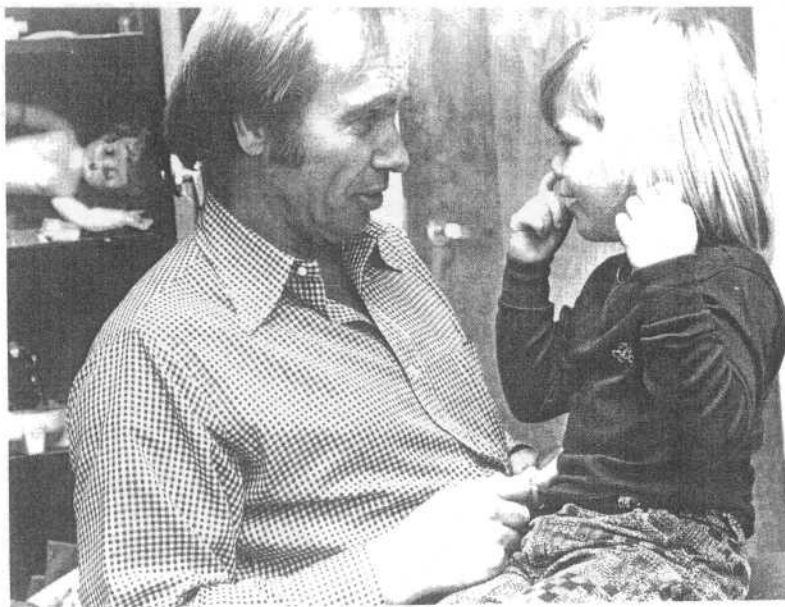
sounds great, but it doesn't work that way. What is different about our clinic is that while we are treating children we are also collecting data. We don't rely on our subjective impressions of what our results are; we record the child's behavior accurately and objectively so that we know what effect the treatment has. And what we find is that when we love kids for self-mutilation the rate of self-mutilation *increases*; when we punish it, the rate *decreases*. If there is anything our work has taught us, it is not to trust a theory. Theories are either impotent—they don't tell you what to do about a problem—or they tell you to do something that may be harmful. Trust your data; go where it takes you. Skinner's contribution is chiefly methodological—he asks that we find out what effect something has and act accordingly, rather than assume that it works because a theory says it ought to.

**Chance:** You are saying that Skinner's contribution is in identifying how to get control over the behavior of the researcher and the therapist, not the pigeon.

**Lovaas:** Exactly. The researcher should be controlled by his data, not by what his colleagues tell him or what a theory tells him. I am suspicious of all theoretical notions; what I am attached to is a procedure for finding out what works. I went through the theoretical games. I was trained analytically and I saw all of life through the eyes of a psychoanalyst. I had everybody analyzed, even my own parents and my sisters and brothers, even my own dentist.

**Chance:** . . . who was orally fixated.

**Lovaas:** Yes, of course. I had my child's dentist particularly well diagnosed. He wanted to repair some cavities and I said, "These are her temporary teeth; why can't you just leave them alone?" He said that she was going to have those teeth for some time and that he wanted them fixed. And I looked at him; he had brown eyes and black hair and I knew right away that he was an oral sadist. You see, I was so overwhelmed by all the things that Freud had said that it interfered with everything I did. I had children and I knew all the things that Freud had said could go wrong, and I was terribly inhibited. I could not be angry and I could not be loving. It got to be sort of sickening. I became like so many of my colleagues—highly neurotic, inhibited, intellectualizing. And I was not meant for that kind of life; it just drove me crazy. Besides that, it didn't work. Finally I began to pay more attention to results. I think a lot of people are doing this now, relying more on empirical evidence than on a theory or a great man. There are

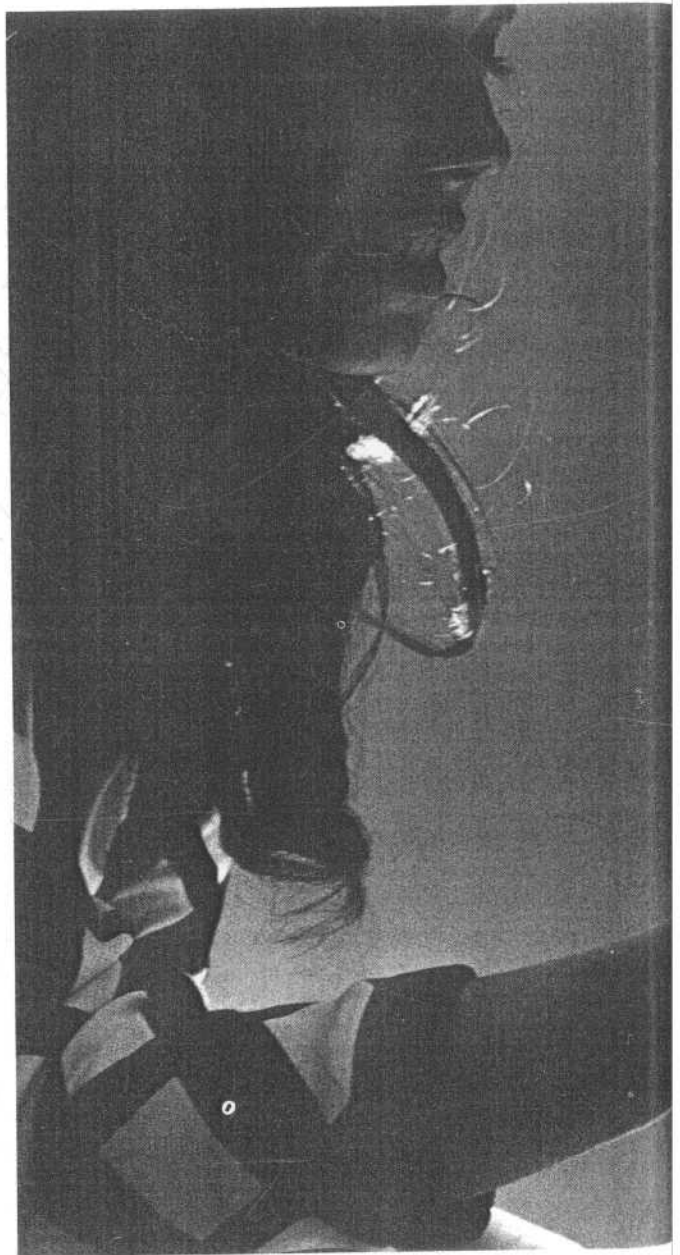
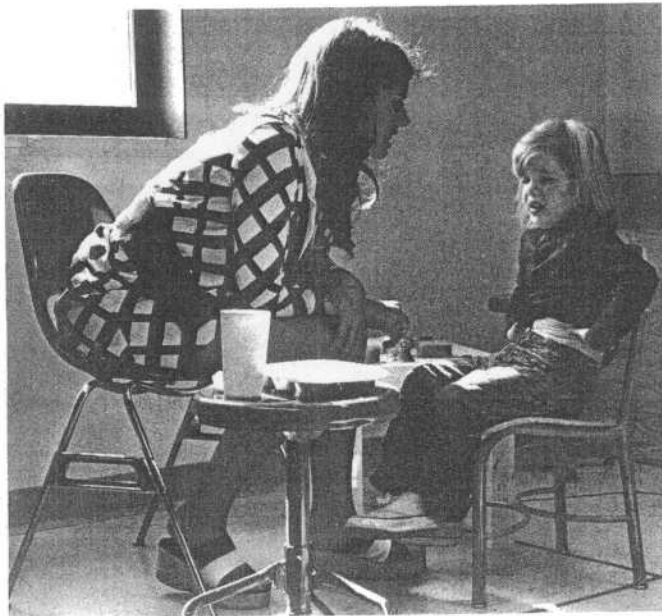
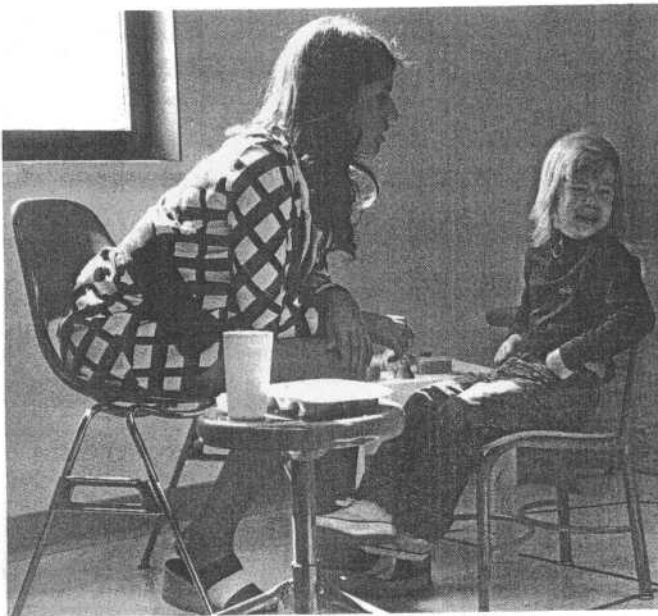


have to have someone tell us where the truth is any more; we look for ourselves. The day of the great man in psychology is over, and I love it. I think it is just great.

You know, you can get so obsessed with the great men and the great theories that you end up hiding in thought. You spend so much time intellectualizing that you don't get anything done.

**Chance:** One of the characteristics of autistic kids is that they get preoccupied with some behavior like rocking and they never get anything done. You are suggesting that many therapists and academicians are self-stimulating. They are so preoccupied with their theories and sand castles that...

**Lovaas:** that they never get anything done. Yes. What maintains and shapes them is not what they do in the external



world but what they do in their own internal world. If you think that man's salvation comes through sitting down to reason out problems, two things happen. First, it is a comforting idea and it makes you feel good. Second, you don't go anywhere.

**Chance:** You become a monk.

**Lovaas:** You become a monk. Here at the university for example, many of the faculty members are doing nothing but self-stimulating. They are reading their beads. There are behaviors that are maintained by changes in the real world, and then there are behaviors that are maintained largely by internal consequences. Too many of my colleagues are engaged in behavior that is maintained by their internal consequences. They write articles and books—but they haven't helped solve the problems that concern society. They are like monks who spend their lives praying

to God; that is also self-stimulatory because there is no reason to believe that prayers produce changes in weather conditions or prevent wars. And academicians are like that. They hole up in their offices, they are nice, gentle people, they have smooth hands, they are not touched by dirt, and they are perfectly happy because it feels good to self-stimulate. And they will not do anything that has any impact on their society unless they are made to change. Any institution which isn't made accountable—a church, a government, a business—will self-stimulate.

An autistic child is perfectly happy to rock back and forth hour after hour, day after day. They will not do anything productive unless you change the environment so that rocking is no longer rewarding. The same thing is true of university professors. They will self-stimulate until

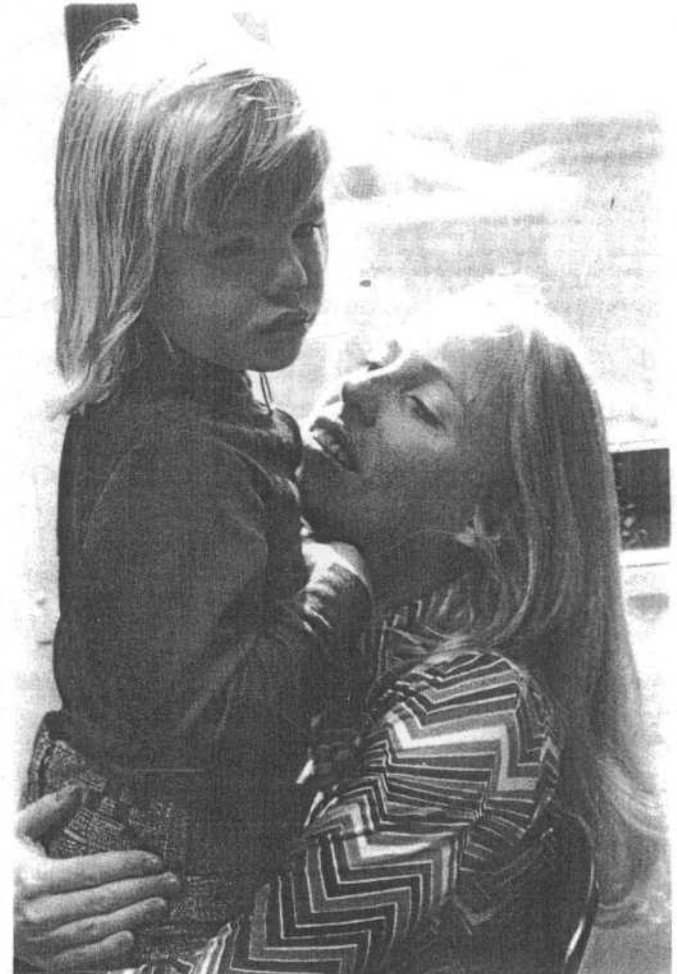
other people make changes in their environment that discourage them from self-stimulating. When people get fed up with the rocking behavior of the university, when they cut off funds and demand that the staff become relevant, then the university will change.

**Chance:** This is like the case of Beth you spoke about before. You finally get angry and punish that kind of behavior. So the university is in for a spanking.

**Lovaas:** It is in for a spanking, and only when it gets a spanking will it change.

**Chance:** But the public doesn't have the same degree of control over the university that you have over the autistic children in your laboratory.

**Lovaas:** That's true, but as people get educated they get control. You can only fool or suppress uneducated people. As people get educated they learn how to get



Ivar Lovaas communes, upper left, with four-year old Gregory, who is autistic. At middle left, Gregory's teacher-therapist, Carol Zinar, works to stop his crying and gain his attention. When he fidgets, cries, moves about, he may get a smart slap. Lower left, Zinar ventures a simple command, "Give me the green block." When Gregory complies, he gets a bit of cookie and voluminous praise. The fight for an autistic child's humanity requires saintly patience. At right, Gregory's mother, Pamela Monroe, fills Lovaas' prescription: "Load them up with love."

control over others, and they demand that others be accountable.

**Chance:** So psychology will give the individual more power, not less.

**Lovaas:** Yes. Once people understand how their own behavior is controlled, it gives them the tools to control the behavior of others. And others in turn have the tools to control them. It is not a matter of one person controlling the behavior of another; control is reciprocal. And as we understand more and more about behavior, the individual will become more and more important. He will get greater control over his own destiny, and he will not need to rely on experts to decide things for him. Politics as we know it will cease to exist. Politicians are bad for you; the good ones put you out to pasture, and the bad ones burn you. What I think will happen is that eventually each person will be intimately involved in making decisions that are now made by governments. We will have a true democracy.

**Chance:** Society will be shaped more by its members than by its leaders?

**Lovaas:** Yes, but this will happen gradually. Radicals want to change society very rapidly; but it won't happen that way and it shouldn't. Rapid change produces too many mistakes. There is no way that you can discover the ideal society from an armchair, any more than you can discover how to treat autism from an armchair. You have to experiment and look at your results. When something works, you stay with it; when you try something that doesn't work, you drop it. This is how we discovered how to shape the environment of an autistic child; this is how society will be shaped up. The important thing is that as people understand how behavior is controlled by the environment, they will become more efficient at shaping society.

**Chance:** You are suggesting that society is pretty healthy. But Erich Fromm and Freud have insisted that society is sick, and Freud even argued that it was unlikely to get better. Society is a dying patient with an incurable disease. You are a physician saying that this is not the case.

**Lovaas:** Yes, society is well. Aren't you and I?

**Chance:** I feel pretty well.

**Lovaas:** Most of the people you meet feel pretty well. And most people tell you that their kids are better off than they were when they were kids.

**Chance:** So someone must be doing something right.

**Lovaas:** Yes, and remember we did it all ourselves. We didn't act out any social instincts, like the animals do. And God didn't tell us what to do. So we did it by

ourselves and we are here as the result of a giant trial-and-error experiment, and I marvel at its rules and structures. Now imagine how well we will be doing in the future when we know that we are, in fact, experimenting and we have given up the notion that some races are bad, that man is born sinful, and that kind of bunk. But despite yesterday's ignorance, we have more than we ever had. More people can listen to beautiful music today than ever before; more people can see great paintings than before. I can sit in my own living room and listen to Antonio Vivaldi any time I want to, even at seven in the morning when I'm taking a shower. In the past, when Vivaldi was alive, not even the Pope could do that. But today I can.

**Chance:** OK, many people today can enjoy things that were previously available only to the aristocracy. And it is the machine that we call society that made it possible for so many of us to have access to



**"I wouldn't want to live in Walden II. And we won't produce that kind of society because most of us don't want it."**

the good life. But if we get really good at controlling behavior, won't that mean that we will shape up society along the lines of Walden II or 1984?

**Lovaas:** No, because none of us wants that. We need to ask ourselves what kind of society we want. I don't want 1984; I don't want a brave new world. I don't want another Hitler. I don't want Skinner to engineer my society. I don't want that kind of control; I just don't. I wouldn't want to live in Walden II; it would be too damned boring. I would die in Walden II. And we won't produce that kind of society because most of us don't want it; we could only have that kind of outcome if we had leaders who knew how to control behavior and people who didn't. But the fact is that the masses of people are learning how behavior is shaped; they are learning how to manipulate the environment to change behavior. No leader or group is going to be able to control our environment sufficiently to produce a society that most of us don't want.

**Chance:** There is one thing that bothers me about engineering a culture, whether it is done by the mass of people or a single Skinnerian. There are no absolutes—there is no way that anyone can establish that a behavior is right or wrong. Granted, we can agree there are some be-

haviors that are desirable and undesirable. For example, almost everyone will agree that murder and rape and burglary are undesirable acts. So we can outlaw those behaviors and then use the skills that we have for controlling behavior so that these crimes decline. We could actually make these acts almost unknown if we were really systematic about applying the necessary controls. But then suppose that we did just that. Then other acts, that didn't seem so bad before, compared to murder and rape and burglary, will become the most serious crimes. So then we decide to control those behaviors. And what I'm afraid of is that our sense of what is acceptable behavior will become more and more restrictive. We will get rid of the most offensive acts and then less offensive acts will seem terrible to us. And we will define acceptable behaviors in more and more narrow ways.

**Lovaas:** Will we? I don't think so. All of us are nonconforming in one way or another, and if people try to stop you from behaving in some nonconformist way, they will run the risk that you will keep them from behaving in a different nonconformist way. I think that people will become more varied in their behavior and more tolerant of nonconformist behavior in others. We will forbid only those behaviors that are threatening or disagreeable to large numbers of us. I think that now there is a tolerance for diversity that didn't exist in the past. It is difficult to measure, but it seems to me that there is more diversity rather than less. The day of the great preacher, the great statesman, the great scientist, is gone; we are not going to let a few individuals tell us what the rules should be. And if we are making the rules ourselves, then it will be hard to make rules which restrict our behaviors unnecessarily. And an interesting by-product of this will be that we will come to appreciate ourselves more. If we no longer rely on experts to decide for us, then that makes us more important. It makes each of us an expert. We will be our own leaders.

**Chance:** What you are suggesting is that recognizing our own limitations as human beings, recognizing that we are controlled, that our behavior is determined, is liberating. Once you recognize that you are not autonomous, you have greater autonomy; once you recognize that you are controlled, you have greater control; once you grant that you are not free, you have greater freedom. It is an interesting paradox. □

For a taped discussion with Laura Schreibman, Lovaas' colleague, about autism, see page 103