A program designed to improve behaviors characteristic of impulsivity and inhibition by enhancing children's real-life problem solving thinking skills is provided for use by parents and teachers of four- and five-year-old children. Twenty minutes of daily lessons are administered in small groups (or to a single child at home), in combination with problem solving dialoguing techniques when real problems arise at school or at home. The two problem solving skills that most highly relate to improved behavior are ability to: (1) name alternative solutions to interpersonal problems (e.g., wanting a toy another child has), and (2) name relevant consequences of an act (e.g., grabbing that toy). Studies have shown that problem solving training not only helps to improve existing behavioral difficulties, but follow-up of youngsters from nursery to kindergarten shows that adjusted youngsters in nursery are less likely to show behavior problems in kindergarten if trained than if not trained. (Author/RH)
A PROBLEM SOLVING MODEL
for
PARENTS AND TEACHERS OF YOUNG CHILDREN

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A Problem Solving Model for Parents and Teachers of Young Children

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There are lots of ways to change behavior of young children. We can tell them what to do, and sometimes they will. We can reward what we like, and punish what we don't, which may take effect, at least for now. We can reason, model and offer choices, usually from those we approve. But all of these techniques add up to one thing—we are doing the thinking for the child. Our approach is different. We believe that even very young children can, or can learn to, think for themselves and solve everyday problems that come up with others, and that those who can do this are likely to be better adjusted than those who cannot.

When George Spivack and Murray Levine first discovered distinct differences in certain interpersonal thinking skills between normal adolescents and the disturbed, Spivack began to theorize that there is a set of Interpersonal Cognitive Problem Solving (ICPS) skills that mediate adjustment. Differences found by Jerome Platt and Spivack in adults added to this possibility, as did those George and I noted in children nine- to twelve-years of age.*

At this point we asked ourselves whether these kinds of thinking skills could distinguish relatively normal youngsters who show behavior difficulties from those who do not, and if so, how early?

* See references.
We found we could identify such skills in children at age four. Independent of IQ, children who were overly impatient or who displayed excessive control of behavior to the point of inhibition were particularly more deficient than their better adjusted peers in two such skills: 1) ability to generate alternative solutions to an interpersonal problem, such as how to get to play with a toy another child has, and 2) consequential thinking, or ability to foresee what might happen next if a child carries out an act, such as to grab that toy.

Because we felt that benefits could be optimum by intervening at the earliest feasible age, and having found significant differences at age 4, especially in the lower social class, we decided to design a systematic program for use by parents and teachers of inner-city preschool and kindergarten youngsters. Intervention would serve as a service program for children, as well as a test for ICPS skills as behavioral mediators. A skill would be considered a mediator if children who increase in the trained ICPS skills would also decrease in impulsivity and inhibition (behaviors intimately related to ICPS before training). If we could enhance social adjustment, not by direct modification of behavior itself, but by altering the child's interpersonal thinking style, then we would be able to offer a new approach to primary prevention.

Very briefly, the format of the program is a script, upgraded in sophistication for use in kindergarten, and modified for flexible use with a single child at home. Children are exposed to three months of daily 20-minute lessons in game form, beginning with simple word concepts built in for later association in problem solving. For
example, the word "not" is taught so children can later decide what and what not to do, and whether an idea is or is not a good one. The word "or" helps children think about the idea that there is more than one way to solve a problem: "I can do this or I can do that," and the word "different" helps to later think of different things to do.

Identification of, and sensitivity to people's feelings is important in problem solving. Children learn that there is more than one way to find out how people feel and what they like--by watching what they do, hearing what they say, and asking if they are not sure. To help children understand the effect of their behavior on others, and of others' behavior on them, games focus on why a child might feel as he does: "He's mad because I took his toy."

After mastery of these kinds of skills, generally in about eight weeks, children are presented with pictures and puppets depicting interpersonal problem situations and asked for all the ways they can think of for the portrayed child to, for example, "get another to let him help feed the hamsters." All solutions are accepted equally--forceful ones as "hit" or "grab the food" and nonforceful ones as "say please," "I'll be your friend," or offering a toy. In subsequent games, the children evaluate for themselves whether an idea is or is not a good one, and why. We took this approach because in our pretraining research, adjusted children could think of force just as could the less adjusted, but they could also think of more non-forceful ones. It appears that it is the ability to generate multiple options more than content that relates to healthy adjustment. So the idea is not to take away from poor problem solvers what they already know, but to help them think about what they do; then to discover there's
more than one way. Therefore, solutions are never reinforced for being good, but rather, for being different.

I also worked very closely with teachers in developing ways to talk with children when real problems came up — problem solving techniques which were quite rewarding and later included as part of the mother's training as well. Before training, one teacher could not get Daniel to stop grabbing toys from children.

**Before Training**

T: Daniel, why did you grab that shovel from Jamie?
C: He never shares.

T: You can't grab toys. Jamie doesn't like that. You should ask.
C: It's not fair. He won't give it to me.
T: If you grab like that, he won't play with you anymore.
C: I don't care.

T: Daniel, I told you to ask him for it.

Daniel asked, was refused, and either in frustration, or by decision, hit Jamie.

Why did this teacher bother to ask why? No matter what Daniel would say, this teacher would no doubt have said what she said anyway. "You can't grab." A command. "Jamie doesn't like that." Daniel doesn't care. "You should ask." Telling him what to do. When told the consequences, "he won't play with you anymore," Daniel didn't care about that either. The end result of Daniel's hitting Jamie now created a new problem, and the power play began all over again. When adults are more concerned with their point of view than that of the child's, and wonder why they don't listen to us, how often do children wonder why adults never seem to listen to them? And if the child does
comply, how often is it just a solution to another problem, how to get rid of the demanding adult.

After training: (Same type of problem, this time a mother).

M: What happened? What's the matter?
C: He's got my racing car. He won't give it back.
M: Why do you have to have it back now?
C: 'Cause he's had a long turn.

In eliciting the child's point of view, this mother just learned something that would not have been possible had she simply demanded he share. She learned that in fact, her son had shared his toy, and that the problem to be solved was different than it first appeared to be.

M: How do you think your friend feels when you grab toys?
C: Mad, but I don't care. It's mine.
M: What did your friend do when you grabbed the toy?
C: He hit me but I want my toy.
M: How did that make you feel?
C: Mad.
M: You're mad and your friend is mad, and he hit you. Can you think of a different way to get your toy back so you both won't be mad and so he won't hit you?

What Ralph would say at this point is not critical. What is critical is that Ralph is guided to think about the problem, and what happened when he acted as he did. Recognizing that grabbing "now" is not so catastrophic, this mother focused on the child's view of the problem -- wanting his toy back -- and not what might have been her view, a need for her child to share, or discontent with his having grabbed.
This is not to say adults should never show anger. Anger is a problem in itself that a child has to learn to cope with, if he is encouraged to think that way to begin with -- and if emotional outbursts are not overwhelmingly frequent. This is also not to say that children should always end up with what they want. They learn to cope with frustration when they cannot have their wish. One child asked his teacher for some play-dough. She told him she couldn't get it now because she was tending a child who was hurt. When asked if he could think of something different to do until she was finished, he thought for a minute, then said: "I'll go paint." Had the teacher suggested he paint, the child no doubt would have said "I don't want to paint, I want the play-dough. A child is much more likely to carry out his idea than one suggested or demanded by the adult.

Within a wide IQ range (70 - 120+), teacher-trained nursery and kindergarten youngsters improved in both alternative solution and consequential thinking skills more than comparable nontrained controls. More importantly, trained children who most improved in these two skills were the same youngsters who most improved in behaviors characteristic of impulsivity and inhibition, supporting the theoretical position of ICPS skills as behavioral mediators. Ability of a child to generate in his own mind different alternative solutions to a problem emerged as the strongest behavioral mediator both years, suggesting that thought about "what might happen next" only guides what a child does if he can think of other things to do. Together, these thinking skills helped impulsive children learn to wait, become less overemotional when frustrated, less nagging and demanding and
less aggressive. Inhibited children became more socially outgoing, more able to stand up for their rights when attacked, and more expressive of their feelings.

One full year after training, there was no significant loss of ICPS skills. Also, ICPS-trained children who began as impulsive or inhibited, and were judged to be adjusted by their teachers immediately after training, maintained that good adjustment when re-evaluated by different teachers one and two years later. In addition, we learned that ICPS-trained children showing reasonably well adjusted behaviors in nursery were likely to maintain those behaviors throughout kindergarten and first grade; more so than comparable nontrained controls. We were very excited by this because it meant that ICPS training added further significance of the approach for primary prevention. Not only did it help reduce already existing behavioral difficulties, but it helped to prevent such difficulties from occurring in the first place.

The advantages of such programming became further evident when we saw the percentage of adjusted nontrained children steadily decline from the beginning of nursery to the end of the first grade. Such data is supported by Spivack and Marshall Swift, who have noted that some behaviors in adjusted inner-city children regress still further by the end of the third grade, and by Melvin Zax and Emory Cowen, who report that more seriously disturbed youngsters, left untreated are often quite impaired by the third grade.

In training mothers, it became clear that many were themselves, poor problem solvers, at the start. We learned that effects on children were greater when both mother and child were taught how to think.
Mothers who developed skills to think through hypothetical mother-child or child-child problems; who could see potential obstacles (that problem solving is not always smooth sailing); who could appreciate their children's point of view, even when different from their own; and could recognize that helping their children think about what they do can have more value than taking immediate action to stop it, were also more likely to encourage their children to think when real problems came up. In training meetings, parents just beamed when they thought of different ways a problem could be solved, and would say things like "I never thought of that before." One parent, smiling whimsically quietly announced, "I never thought about that before." While these new skills of the mother had significant impact on her child's ICPS skills, it was still the child's resultant ICPS skills that had the most significant direct impact on his behavior. We assert that as children are freed to think for themselves, and acquire skills to do that, impulsive children have less need to be impatient or aggressive; the inhibited less need to withdraw from people and from problems they cannot solve. When not told what or what not to do everytime a problem comes up, children can generalize these skills when new ones arise. This became evident when children trained by their mothers at home significantly improved their behavior as observed by teachers in school.

If educators and clinicians have assumed that relieving emotional tension paves the way for one to think straight, our research supports the reverse idea -- that ability to think straight can pave the way for emotional relief. While we make no claim that ICPS training is the only way to primary prevention, we believe that a child's behavior
is guided more by how he thinks, than by what he thinks. We also believe that the quality of social adjustment and interpersonal competence can be noticeably enhanced, and latent maladaptation dramatically reduced, by implementing the problem solving approach to adjustment.