

# #10672

## SOCIAL COGNITION

WGBH, 2000  
Grade Level: 13+  
43 Minutes



### CAPTIONED MEDIA PROGRAM RELATED RESOURCES

[#7705 COPING SKILLS](#)

[#9891 MISUNDERSTOOD MINDS](#)

[#9426 STOP AND GO AHEAD WITH SUCCESS: AN INTEGRATED  
APPROACH TO HELPING CHILDREN DEVELOP SOCIAL SKILLS](#)

# About the Developing Minds Video Library



The *Developing Minds* multimedia library features the work of All Kinds of Minds, a private non-profit Institute, affiliated with the University of North Carolina at Chapel Hill. All Kinds of Minds offers a broad range of programs and resources that enable parents, educators, and clinicians to help children and adolescents with differences in learning achieve success in school and life. The Institute was co-founded by Dr. Mel Levine, who for more than 25 years has pioneered innovative programs to enhance the understanding and management of students' learning difficulties. Dr. Levine's comprehensive neurodevelopmental model draws on research from a wide range of disciplines. A renowned developmental-behavioral pediatrician, Dr. Levine is also Professor of Pediatrics at the University of North Carolina Medical School and Director of the University's Clinical Center for the Study of Development and Learning.



all kinds of minds

*Developing Minds* is a library of 22 videotapes with accompanying guides. The library is designed to help parents and teachers of elementary and middle-school children explore differences in learning through the approach and conceptual framework of developmental-behavioral pediatrician, author, and professor Dr. Mel Levine.

The heart of the collection, which features children and early adolescents with diverse learning profiles, is divided into *theme* and *construct* videos. The eight theme videos focus on children's struggles and successes with skills such as reading, writing, and mathematics as well as difficulties in communication, understanding, organization, feelings, and behavior. The eight construct videos begin where the theme videos end, illuminating breakdowns in such key areas of brain function as attention, memory, language, neuromotor, social cognition, temporal-sequential ordering, spatial ordering, and higher order cognition.

Dr. Levine guides viewers through the videos as he and other experts, teachers, parents, and children provide commentary and strategies. Together, the videos and print guides promote an understanding of learning differences—strengths and weaknesses—and strategies that help children become successful learners. This material also gives parents and teachers a common language to advance effective communication between home and school.



## Theme Videos

Present the learning problems and successes of children and early adolescents (40–60 minutes each)

- Mastering the Challenge of Reading
- Getting Thoughts on Paper
- Thinking with Numbers
- Understanding
- Student Output: Producing, Performing, and Communicating
- Getting Organized/Work Habits
- Feelings and Motivation
- Behavioral Complications



## Construct Videos

Provide deeper insight into specific neurodevelopmental breakdowns that contribute to differences in learning (30–60 minutes each)

- Attention
- Language
- Neuromotor Function
- Memory
- Social Cognition
- Temporal-Sequential Ordering
- Spatial Ordering
- Higher Order Cognition

## How to Use

Together, this video and guide can be used to increase awareness and gain a deeper understanding of children's difficulties with social cognition. The video is organized into two areas of social cognition function: *verbal pragmatics* and *social behaviors*. Scenes feature children in classroom settings who are experiencing social cognitive difficulties, such as not being able to make friends or fit in with peers. Dr. Mel Levine and teachers offer practical suggestions to enhance children's social interactions and social cognitive abilities.

The structure of the guide is similar to the video, with information on each of the two areas of social cognition as well as a section, Explore the Video, that highlights scenes of children struggling to communicate, interpret feelings, present themselves positively, and nurture positive relationships with important people. In addition, the guide provides a glossary of terms used in the video, a checklist of signs of problems with social cognition, a brief background article on social cognition, and resources for further information.

There are many ways to use these materials, including watching the video alone, working with a partner, participating in a teacher or parent study group, or using the video and guide at a parent-teacher association gathering. However you choose to use them, these materials will provide insight into important difficulties that children experience with social cognition. The Viewing Tips on page 7 offer key questions to reflect upon after watching.



### Tips for Using

- Scan the guide and read the introduction and background article. Watch the entire video, then rewatch it, using sections of the guide to reinforce what you see.
- To find information that addresses your needs, go directly to a particular section of the guide, such as Explore the Video, then view related video segments—or refer to the guide alone.
- Begin exploring the video library with *Social Cognition* for an overview of the topic. Then watch related theme tapes, such as *Behavioral Complications, Feelings and Motivation*, and *Student Output* for information on how difficulties with social cognition can affect learning.

### Management by Profile Videos

Introduce a systematic process for developing an individualized educational path based on a child's neurodevelopmental strengths and weaknesses; *A Student Profile* showcases a child as he moves through the process (20–30 minutes each)

- Strategies for Parents
- Strategies for Teachers
- A Student Profile

### Introduction Videos

Provide a brief description of the video library components; the Parents' and Teachers' videos also introduce the philosophy and approach of Dr. Mel Levine (10–20 minutes each)

- Video Library Overview
- Introduction for Parents
- Introduction for Teachers



## Introduction

***“Being picked on is a big problem . . . like people call me names every day . . . Sometimes it makes you feel like you want to cry.”***

—Karl,  
sixth grade student

***“When I use big words, sometimes some of the other kids don’t understand them, and they’re like, ‘Smart guy—thinks he’s smart.’”***

—Nicholas,  
seventh grade student

School is a social experience. Besides needing to communicate and behave appropriately during classroom activities, children interact with one another in the cafeteria, in the hallways, and on the playground. Children are constantly concerned with making friends, getting along with others, and being accepted and respected by their peers and teachers. Developing social abilities is an often overlooked yet important contributor to a child’s well being.

Children’s success with others is influenced by their social cognition—their ability to communicate and act in socially acceptable ways. Social cognition enables children to interpret others’ feelings so they can respond appropriately, present themselves in ways that others find appealing, and engage in positive relationships with people who are important in their lives.

Weaknesses in verbal pragmatics (communication skills) and social behaviors may make it difficult for some children to build and maintain positive relationships. They may do and say things that lead others to tease, shun, or bully them. These children may then expend a lot of energy avoiding humiliation and finding ways to save face. Sometimes, they, too, initiate inappropriate teasing, avoidance of others, or bullying. As social problems escalate, children may resist attending school.

Dr. Mel Levine and other researchers have begun to develop an understanding of the neurodevelopmental underpinnings of social cognition. Research indicates that different kinds of brain functions—such as attention, memory, neuromotor, and language—may contribute to children’s social cognition. As Dr. Levine points out, “Social cognition doesn’t operate independently . . . it’s connected to other [functions].” For example, children with attention problems may say or do things without thinking ahead, which may put them at a social disadvantage.

To better understand social cognition and its impact on a child's schooling and well being, Dr. Levine has defined two important areas for focus—*verbal pragmatics* and *social behaviors*.

## Verbal Pragmatics

Verbal pragmatics is the ability to use and understand language within social situations. It includes the following five functions: code switching, topic selection and maintenance, humor regulation, conversational technique, and communication and interpretation of feelings.

Code switching is the ability to know how to speak differently depending on the situation and the person involved. Most children know they should speak in a different way to a police officer than they would to a classmate. When children do not practice code switching with their peers, they may be teased or criticized. Children who use big or technical words that peers do not understand may sound so sophisticated or professorial that peers consider them “show offs” or “know-it-alls.”

Topic selection and maintenance involves picking the right topic for the situation and staying with it for an appropriate amount of time. Difficulties may arise when children talk about the wrong thing or don't know when they have talked too long on a certain topic.

Humor regulation involves using tasteful and appropriate humor and responding to other people's jokes. Children who have difficulty regulating their humor may appear too somber or elated for a situation, or they may not realize that their humor is not being perceived by others as funny.

Conversational technique is the ability to engage in the give and take of verbal interactions. It involves sharing the conversation—giving the other person a chance to talk, responding in appropriate ways to others, listening, and initiating discussion.

Verbal pragmatics also includes communication and interpretation of feelings. This function involves the ability of a person to convey his or her feelings through language and to correctly interpret another speaker's feelings. Children with difficulties in this area may sound abrasive or angry without intending to. Or they may decide incorrectly that a speaker is angry with them.

## Social Behaviors

Social behaviors involve the nonverbal actions in social situations that help to foster optimal relationships with others. Social behaviors include *collaboration*, *social control regulation*, *conflict resolution*, *political acumen*, *self-marketing*, *social information processing*, *initiation technique*, *timing and staging of relationships*, and *social conceptualization*.

A major part of social behaviors is collaboration, or the ability to cooperate and work well with others. Children who have difficulty collaborating typically have problems in classroom and home activities where teamwork is important. These children may not know how to form alliances with peers in ways that allow them to meet shared goals.

The ability to maintain the right balance of give and take while relating to others is called social control regulation. Often, children with weak social control regulation either are too domineering or too passive in relationships.

***“Social success with peers is of paramount importance to most school children. The avoidance of humiliation at all costs is a relentless campaign, as is the quest for friendship.”***

—Dr. Mel Levine

Conflict resolution involves resolving interpersonal disagreements. Many children who have difficulty relating to others may resort to resolving conflicts through verbal or physical aggression, or they may passively withdraw without solving the conflict.

Political acumen refers to how well a person can interact with people who are important or influential in their lives or in a specific situation. This ability allows children to form and nurture important relationships with such people as teachers, coaches, or influential peers.

Social behaviors also include:

*self-marketing*—a set of skills—such as an awareness of how one comes across to others through dress, actions, and interests—that enables children to build and display an appealing image to others.

*social information processing*—which enables children to figure out the true meaning or agenda in a social encounter.

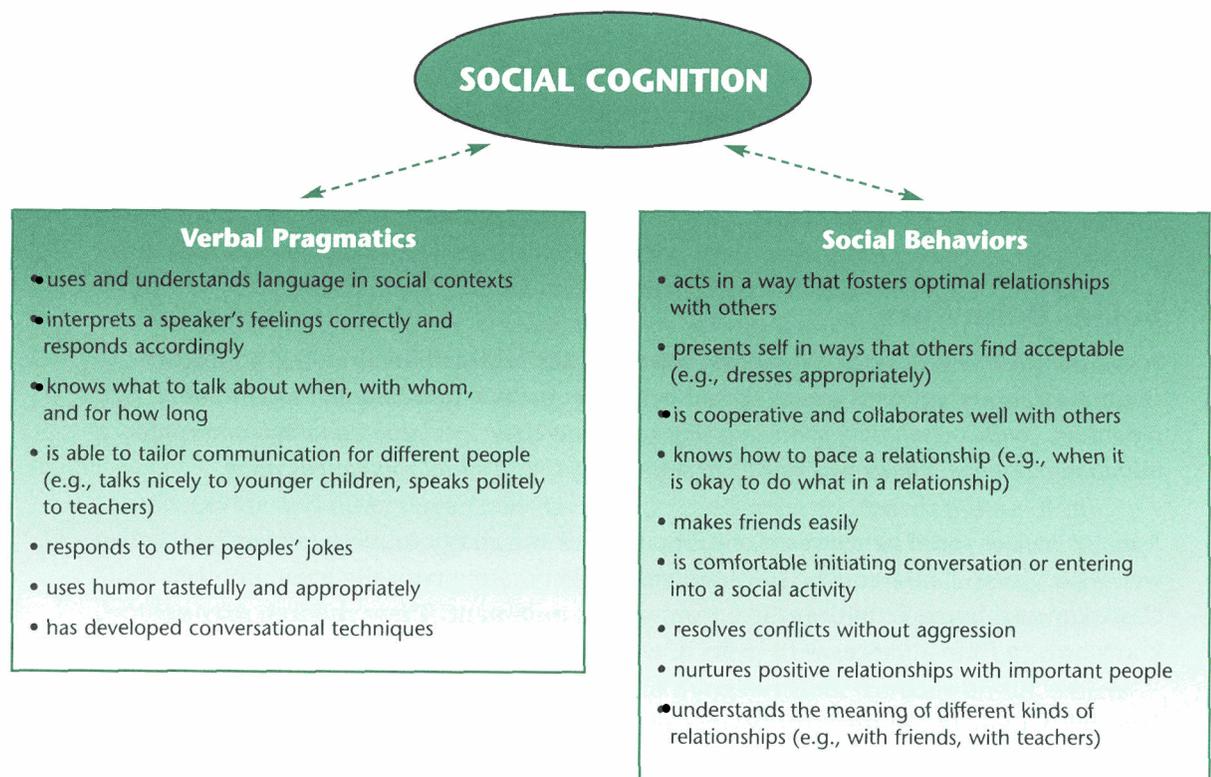
*initiation technique*—which allows children to form relationships or enter into social activities easily.

*timing and staging of relationships*—which enables children to know when it is okay to do something in an interaction, such as pacing interactions well or not taking liberties with new acquaintances.

*social conceptualization*—which helps children understand the meaning of different kinds of relationships, such as what it means to be a friend.

## Social Cognition Diagram

This diagram offers a visual representation of the areas of social cognition presented in the video.



## Viewing Aids

The **Glossary** and **Signs of Problems with Social Cognition** explain concepts presented in the video. Refer to them while you view the video, or afterward when thinking about how you might help a particular child.

### Glossary

**accommodations:** adjustments to tasks that work around a child's neurodevelopmental differences or weak skills; sometimes referred to as bypass strategies

**brainstorming:** generating and thinking through original ideas

**code switching:** being able to tailor one's conversation to the individual and the situation; for example, talking politely to adults or using slang with peers

**collaboration:** working or playing in a cooperative manner with others

**conflict resolution:** resolving interpersonal disagreement without aggression

**conversational technique:** listening and speaking appropriately with others; showing give and take in verbal interactions

**demystification:** the process of helping children understand—and have the terms necessary for coping with—their learning strengths and weaknesses

**dysfunction:** weakness in any neurodevelopmental process, for example, not having enough mental energy to complete a task

**expressive language:** the ways in which thoughts are communicated in speaking or writing; expressive language abilities allow children to participate in class discussion, explain their ideas orally, and communicate thoughts in writing

**humor regulation:** making use of tasteful, appropriate humor and responding to other people's jokes

**metacognition:** thinking about one's own thinking; for example, focusing not only on what you have to learn, but how you are going to understand it

**neurodevelopmental functions:** brain-based processes needed to acquire and produce knowledge, skills, and approaches to learning

**political acumen:** acting properly; nurturing positive relationships with important people, such as teachers and student leaders

**problem solving:** applying a systematic, stepwise approach to resolving challenges

**self-marketing:** building and presenting an image that is appealing to others

**social behaviors:** acting in ways that foster optimal relationships with others

**social conceptualization:** understanding the meaning of friendship and other kinds of relationships

**social control regulation:** maintaining the optimal level of personal choice or will when interacting with others; demonstrating give and take; not being too dominant or too passive

**social information processing:** figuring out the intentions, feelings, and motives of another person in a social encounter

**timing and staging of relationships:** knowing how to pace a relationship, e.g., when it is okay to do what in a relationship or interaction

**topic selection and maintenance:** knowing what to talk about, when, with whom, and for how long; for example, selecting appropriate subjects to discuss with classmates

**verbal pragmatics:** using and understanding language in social contexts

## Signs of Problems with Social Cognition

### Verbal Pragmatics

- may sound abrasive, angry, or negative without intending to come across that way
- does not switch communication style when interacting with different people (e.g., uses slang when meeting an adult; sounds too grown up when with other children)
- makes statements about inappropriate topics during a class discussion
- has trouble using or understanding humor—can't take a joke, uses humor that offends others
- tries to dominate conversations—does not listen, interrupts
- does not pick up on the true feelings behind what another person is saying

### Social Behaviors

- dresses inappropriately for his or her peer group
- invades others' personal space—gets too close to people when interacting
- tends to have adversarial relationships with peers
- resolves conflicts by arguing or fighting
- has trouble making new friends
- is either too dominant or too passive in interactions with peers
- antagonizes people in authority, fails to connect with people important to him or her
- is unable to read the true meaning behind different social encounters or the meaning of different sorts of relationships

## Explore the Video

Go to these scenes to reinforce what you see in the video or to focus your discussion.

### Verbal Pragmatics

1. Nicholas explains to Dr. Levine that his use of big words bothers other children.



#### General strategies to help children develop code switching abilities include:

- making a recording of the child talking—play it back and discuss how he sounds, exploring when code switching may be necessary
- giving examples of situations when it would be appropriate to use big words
- explaining why peers may become annoyed at the use of big words
- complimenting a child on his advanced vocabulary
- modeling different ways of speaking in different situations—in class, paraphrase a child’s sophisticated language into words his peers can understand

2. Ben has difficulty selecting conversation topics and staying with one for an appropriate amount of time.



#### Ben’s teacher, Mr. Delios, supports him by:

- interacting with him frequently
- limiting his response time to help Ben adhere to the topic
- calling on him to answer questions when there is sufficient time
- giving him feedback in private about what happens when he goes on too long with his answers

3. Brooks likes to be silly, but sometimes uses the wrong kind of humor.



#### Some general strategies that help children regulate their humor include:

- meeting with a child in private to review specific instances when his humor was not well matched to the circumstances
- being honest about what happened as a result of inappropriate joking—perhaps it created a problem for someone else, or there were negative reactions in general from peers
- affirming a child’s sense of humor, but acknowledging that joking moments need to be more carefully chosen

#### Viewing Tips

- Watch the entire video to get a sense of the concepts and issues presented. Then watch the parts that interest you again.

- View the video with a partner or in a small group, then discuss it. Consider the following questions: *How do problems with social cognition affect a child’s academic and nonacademic performance? Which strategies are effective for helping children become more socially competent? Are there any strategies you might want to try?*

- Watch the video with a child who has social difficulties, then discuss your reactions. Have siblings watch the video to gain understanding of their brother’s or sister’s struggles with social cognition.

*"We want to develop social cognitive awareness and social cognitive abilities in all children, and I think we can. I think if we look closely at a child . . . we can help him correct social skill weaknesses."*

—Dr. Mel Levine

4. Children can be helped to develop their conversational technique.



**Ms. McClain helps her class understand the reciprocal nature of conversation by:**

- playing a game in which children interview partners
- having children describe what a good listener looks and acts like
- describing and using examples of listening skills
- asking children to repeat important points from the conversation to themselves while still listening

## Social Behaviors

1. Teachers can use role-playing activities to help children learn more about collaboration.



**For this teamwork role play, the teacher:**

- assigns roles to children—one child is asked to be domineering
- asks children to reflect afterwards on how they felt working in the group
- encourages the child who took on the domineering role to share how she felt, too
- discusses the consequences of behaving in uncooperative ways

2. Marshall is portrayed as having a lot of knowledge, but being too passive within a group of peers.



**His teacher describes Marshall:**

- being in the periphery a lot during group projects
- acting "goofy" to cover for an inability to express what he wants to say
- having a higher comfort level when he is given opportunities to practice presentations before getting in front of peers

3. Damian is a child who handles social conflict with out-of-control anger.



**His teacher describes how Damian:**

- sometimes gets very close to other children and screams at them
- didn't understand why other children began to exclude him
- is learning to recognize what behaviors are socially inappropriate

4. Ben reports to Dr. Levine that he is someone who does not want to win over other kids and be popular.



**Following this exchange with Ben, Dr. Levine notes that:**

- an important part of social cognition is political acumen—or the ability to form relationships with people who can make a difference in your life
- one of the ways children develop political skills is by interacting with teachers
- it's okay if children want to do things on their own, but adults need to make sure children can form relationships if they need to

*“He used to blow up and get about three inches from kids’ faces—and yell at them . . . . Then, he couldn’t understand why they were excluding him the next time. So I pulled him aside, at a very different time, and explained . . . what I saw happening and why I thought the next time it wasn’t very comfortable for him to be with those children. And he’s doing much better.”*

*—Jane Adolf,  
third grade teacher*

## Home and School Collaboration

*“I think the adult world needs to be very much aware that children have to build their social abilities as they get older, and that this is a critical part of everyone’s development and everyone’s education.”*

—Dr. Mel Levine

A child with difficulties in social cognition can present a complex set of problems both at home and at school. Frustration and anxiety can complicate the conversation between parents and teachers about what to do. Respect for each other and open communication can reduce tension and enable parents and teachers to benefit from one another’s expertise and knowledge of the child from different perspectives. Working together, parents, teachers, and the children themselves can inform one another about how to best address the child’s social cognition issues.

### Parents and Teachers Communicating about Social Cognition

Schedule a parent-teacher meeting to share information when you suspect a child is having difficulty socially. The following “talking points” can help structure the discussion.

#### **Share observations of the child’s social cognition profile and discuss where the breakdown is occurring.**

What are the worries or concerns? Does the child have a particular weakness with verbal pragmatics—communicating and understanding language in social situations—or with behaving in socially appropriate ways? Are difficulties in attention, memory, or language affecting the child’s ability to interact socially? Does the child have similar problems at home and at school?

#### **Identify and discuss the child’s strengths and interests.**

How can they be used to improve his or her social cognition? For a child who loves football, build a discussion around the importance of teamwork and collaboration. For a child who enjoys making movies, encourage him or her to make home videos, then discuss with family members the interactions in the videos.

**Discuss possible strategies.** What have you tried that has been successful and not so successful? Are there strategies that might work both at home and at school?

#### **Acknowledge emotional reactions to the situation.**

Discuss how children who struggle socially can become frustrated or angry. They may give up and withdraw from social situations. Talk through specific examples to identify possible sources of their social problems.

#### **Discuss appropriate next steps.**

Establish a plan for ongoing discussion and problem solving. Should specialists be consulted? Does the school guidance counselor or school psychologist offer groups to improve social abilities? How can you best advocate for the child?

#### **When a problem with social cognition has been specified:**

- Learn more about social cognition from other experts, reference books, and Web sites. (See Resources beginning on page 19.)
- Seek assistance from colleagues and experienced parents, professional organizations, and support groups.
- Request that the school’s learning specialist or guidance counselor observe the child, then consult with you on strategies to use in the classroom and at home.
- Investigate the availability of professional help from pediatricians, school psychologists, or social workers.

# Talking with Children about Their Strengths and Weaknesses

*“In the adult world, what really counts is how strong your strengths are, not how weak your weaknesses are.” —Dr. Mel Levine*

Moments of frustration as well as pride are common for children who have difficulty interacting socially and for the adults who work with them. Some children give up and see themselves as failures. Others exhibit behavioral complications that relate to difficulties in social cognition. Dr. Levine suggests using a process called demystification, which, through open discussion with supportive adults, helps children learn to put borders around their differences and understand that, like everyone else, they have strengths and weaknesses. This process creates a shared sense of optimism that the child and adult are working toward a common goal, and that social problems can be managed successfully. The following suggestions can help you demystify children’s problems with social cognition.

**Eliminate any stigma.** Empathy can reduce children’s frustration and anxiety about their difficulties with social cognition. Emphasize that no one is to blame, and that you know they often need to work harder to relate well to others. Explain that everyone has strengths and weaknesses in interacting with others. Reassure children that you will help them find ways that work for them. Share an anecdote about how you handled a social problem or an embarrassing situation.

**Discuss strengths and interests.** Help children find their strengths. Use concrete examples and avoid false praise. You might say to a child who is a video game expert, “Did you see how the other children were admiring how you played that game? I bet they would like tips on how to improve their performance.” Identify books, videos, Web sites, or places in the community that can help children build on their strengths and interests.

**Discuss areas of weakness.** Use plain language to explain what aspect of social cognition is difficult for the child. You might say, “You may have difficulty with working in cooperative learning groups because you start working without asking others about their ideas. They may like working with you better if you give everyone a chance to contribute.”

**Emphasize optimism.** Help children realize that they can improve—they can work on their weaknesses and make their strengths stronger. Point out future possibilities for success given their current strengths. Help children build a sense of control over their learning by encouraging them to feel accountable for their own progress. For example, when a child who makes verbal blunders learns what to say to repair miscommunications, he or she can become more responsible over time for remembering to use this strategy.

**Identify an ally.** Help children locate a mentor—a favorite teacher or a coach—who will work with and support them. Explain that children can help themselves by sharing how they learn best. Older children can explain the strategies that work for them, while younger ones may need adult support. Encourage children to be active partners with their allies.

**Protect from humiliation.** Help children strengthen self-esteem and maintain pride by protecting them from public humiliation related to their difficulties in social cognition. Always avoid criticizing children in public and protect them from embarrassment in front of siblings and classmates. When children make an incorrect statement or an inappropriate comment, let them know that it is okay to make mistakes.

## Management by Profile

Demystification—helping children understand their neurodevelopmental strengths and weaknesses—is part of Management by Profile, a process developed by Dr. Levine and All Kinds of Minds for managing the education of children with differences in learning. Teachers, parents, and the children themselves participate in developing a learning plan for the child that includes strengthening of strengths, accommodations, interventions at the break-down points, and protection from humiliation.

For more information on Management by Profile, see the Management by Profile guide and the videos, *Strategies for Parents*, *Strategies for Teachers*, and *A Student Profile*.

## Strategies to Try

### Strategy Tips

Decide which strategies to try by observing the child and identifying the ways in which he or she learns best.

- It may take several attempts to see positive results from one strategy. Don't give up too soon.
- If the first few strategies you try do not improve the child's skills, try others.
- Most of these strategies can be adapted for use with different age groups.

You may use the strategies on the following pages to help children who are experiencing problems with social cognition. Many of these strategies are accommodations—they work around a child's differences by offering alternative approaches. For example, establishing a signal you can use to cue a child when he is talking too long. Other strategies are designed to specifically strengthen a weakness, such as explicitly teaching children to empathize. From the strategies suggested below, select those that you and the child think might work best.

### General Strategies

**Create a healthy environment.** At the beginning of the school year, discuss topics such as the effects of bullying, name calling, and teasing. Encourage children to consider the feelings of others and engage them in ways to reduce negative interactions. Parents can have similar discussions at home, using sibling and neighborhood examples.

**Encourage supported risk taking.** Make sure children do not feel they will be picked on or scorned when contributing in the classroom. Support children for trying and make it a norm that everyone is allowed to make mistakes. Do not allow others to laugh at a child when he makes a mistake or offers an incorrect answer.

**Teach children how to empathize.** Conduct activities in which children play the roles of others. Discuss how others might feel in uncomfortable situations.

**Establish a relationship based on trust.** Parents and teachers should communicate with children who are having social difficulties. Talk to the child about social setbacks and help her to develop other ways of behaving. Empathize with the child when she confides a hurtful experience.

**Encourage the child to describe social encounters.** Ask questions such as, "What's it like in the lunchroom?" or "What happened after you said that?"

**Teach social concepts.** Engage children in discussions that define and build understanding of concepts such as friendship, a team, fair play, sportsmanship, and sharing. Point to examples in stories, movies, and everyday life.

**Use case vignettes.** Provide short stories of characters with social problems and have children analyze them. Have children suggest alternative ways the characters could have acted or alternative things they could have said.

**Sensitize children to negative labels.** Define and discuss labels that often are used in name calling (e.g., nerd, geek, wimp, tubby). Help children understand the long-lasting effects of calling others names.

**Be honest.** Sometimes children do not realize that a topic or behavior is inappropriate (e.g., talking about imaginary friends after the third grade). Explain to the child in private that such topics or public behaviors are not always appropriate and may result in adverse peer reactions (e.g., laughing behind the child's back).

**Give children chances to interact.** In classrooms, set up nonacademic opportunities for children to interact with others in groups (e.g., board games, computer projects). At home, engage children in conversations around activities.

**Establish discussion groups.** Encourage children to talk about their interests, experiences, and preferences in groups. Give every child a chance to be a group leader.

**Accept a child's decision not to play the social game.** Understand that some children may not want to be any more sociable than they are. When children indicate that this is the case, help them see the possible consequences so they can make a more informed decision.

**Post social skills.** When asking children to practice social skills, post a list of them in a visible location. For example, post a chart of what one would expect to SEE and HEAR in a cooperative group setting if children are working together effectively.

## Verbal Pragmatics

**Model and reinforce ways of code switching.** Describe the type of language used in different social situations and conduct role-playing activities for these situations. Help children improve their own code switching. For example, after a child has used a word that is too technical for peers or siblings, say to her, "You are making a good point. I think what you are saying is . . ." and then paraphrase what she has said in more appropriate language.

**Use signals or cues.** Teach children a secret gesture or sign that you will use to cue them when they are having difficulty using language effectively in a social situation. For example, when teachers or parents notice that a child is talking too long, they might raise their hand or tap their head.

**Conduct follow-up discussions.** After a child has spoken in a socially inappropriate way (e.g., talked too long, talked about an inappropriate subject), talk to him in private. Discuss why his statements created a problem for others.

**Discuss humor.** Talk to children about appropriate and inappropriate forms of humor. Offer specific examples of incidents in which a child may have thought he was being funny, when in reality the joke or statement was perceived by others as embarrassing. Explain the difference between friendly joking/teasing and rude remarks. Discuss with the child those topics that are not appropriate for friendly joking (e.g., death, poverty).

**Teach listening skills.** Ask children to describe a good listener. Have children practice listening skills in activities such as pretend interviews.

**Dissect a conversation.** Analyze conversations by identifying specific techniques, such as allowing for give and take (i.e., not giving a monologue), responding to what people have said in positive ways, and listening. Help children practice effective conversational techniques in role-playing activities.

**Teach children ways to repair miscommunications.** Practice statements such as: "What I meant to say was . . ." and "I can tell I said that wrong . . ."

### Effective Cooperative Groups

#### SEE

- eyes on the speaker
- nodding to show understanding and/or agreement
- heads and bodies of person speaking and person listening bend in towards each other
- note taking (if appropriate)

#### HEAR

- one person speaking at a time
- affirmation of ideas  
"That's a good idea."  
"That makes sense to me."
- speaking in soft voices so as not to disturb other groups
- questions for clarification
- paraphrasing and summarizing

*"What I am hearing [from parents] is that one of the secrets is to find a key that fits in the lock, that fits the child. . . . And different kids have different locks . . . that are going to get them into a groove."*

— Dr. Mel Levine

**Offer explicit directions for verbal openings.** Tell the child to go to a classmate and ask if he may work on the project with her. Or provide general guidance, such as, “When working on your projects today, compliment your group members.”

**Recognize the child’s attempts at expression.** Acknowledge nonverbal attempts to communicate feelings (e.g., facial expressions, sighs, and gestures). Encourage children to express their feelings in words, and help them by teaching vocabulary they can use to describe their feelings (e.g., happy, frustrated, sad, angry, excited, confused, and impatient).

**Make audio or video recordings and analyze them.** Record the child speaking and review the recording with him or her. Discuss impressions—how the child thinks she sounds and how the child thinks others think she sounds. Explore ideas for varying language with peers and others. It is also helpful to tape television programs with character dialogues and analyze language segments with the child.

## Social Behaviors

**Talk to children about self-marketing.** For example, discuss how clothing communicates something about you and how people may respond to the image that clothing creates.

**Discuss collaboration.** Have children define the concept of collaboration. Ask them to explain what cooperation looks like (e.g., what people do when collaborating). Then give children opportunities to discuss actual collaborative efforts. At the end of a cooperative group activity, ask children to reflect on how working together helped them reach their goals or complete a task.

**Review careers in which collaboration and teamwork are critical for success.** Draw attention to jobs and tasks in the real world that rely on people working together. Have children discuss what would happen if people did not work as a team in certain situations (e.g., teammates during a soccer game, firefighters during a fire, scientists at NASA during a launch).

**Use role playing.** Assign children different roles (e.g., domineering, passive, cooperative) and have them work together on a task. At the end, engage children in a discussion of how well they collaborated and how it felt to play a particular role.

**Teach conflict resolution strategies.** Model and practice strategies for resolving interpersonal problems without verbal or physical aggression; for example, settling a dispute without arguing, compromising on a plan of action, or seeking assistance from others.

**Preview or anticipate conflicts.** Teach children strategies such as “stop and think” when a social problem or conflict arises. Brainstorm potentially problematic situations and generate suggestions for appropriate ways to avoid or resolve these situations.

**Suggest alternative behaviors.** In private, engage children who tend to behave aggressively in discussions about their behavior. Help them develop alternative ways of dealing with the same problem in the future.

### Best-Bet Strategies to Resolve a Conflict in Progress

- Relax, don’t do or say the first thing that comes to mind.
- Search for an alternative strategy.
- Select a best-bet verbal response.
- Select a best-bet behavioral response.
- Monitor effectiveness.

**Analyze non-verbal interactions.** Play television tapes without the sound and analyze the interactions to help children learn to “read” the non-verbal cues of body language and facial expressions. Explicitly coach children about body positioning (e.g., how close to stand to someone, depending on the relationship).

**Develop political acumen.** Help children identify the preferences of people with whom they want to foster positive relationships. For example, Ms. Smith likes it when students make informed and accurate statements about history; Pat, the student council president, responds with a smile when peers make eye contact, say “Hi,” and use his name when passing him in the hallways. Encourage children to consider whether they feel comfortable making these types of positive social gestures.

**Provide children with guidelines for greeting people.** Give children questions to ask themselves before initiating conversations, such as, “Have I ever interacted with this person and how did it go?” “What is the person doing and what can I add to what she is doing?” and “How is the person feeling?”

**Provide opportunities for sharing and cooperative work.** For example, in the classroom, have children work together to make a bulletin board or mural. At home, have children and their siblings or friends build a model or bake cookies.

**Solve social problems.** Pose problems or read stories in which the characters are faced with a social interaction dilemma. Ask children to solve the problem from each person’s point of view.

**Provide children with guidelines for regulating their social control.** Teach children to ask themselves questions during interactions, such as, “Does he not want to be around me because I act too bossy?” or “Did she not want to come over to my house because she didn’t know me well enough?”

**Enhance children’s understanding about verbal and behavioral indicators that suggest a relationship is not moving at an appropriate pace.** Use models in stories and movies to portray the timely development of relationships in which peers do not expect too much from each other too quickly.

For more strategies to address weaknesses with social cognition, refer to the *Behavioral Complications, Feelings and Motivation, Language, and Student Output* videos and guides in this library.

## Background on Social Cognition

Throughout the day, children interact with both peers and adults. The ability to develop and maintain positive interpersonal relationships is critical to a child's success in school and in life. Communicating and behaving appropriately in social situations depend on a child's social cognition.

Problems in social cognition are not only among the most difficult for children to overcome, they are also among the least understood. Children who have social problems may fight often, make inappropriate comments, have a difficult time making friends, or incorrectly read nonverbal signals from peers. Others may be avoided by their peers or be picked on for their differences. Although some children may tell parents they don't care about their social plight, most children desire some degree of social success. As children grow into adolescence, social pressures may increase. Social cognition continues to play a role in adulthood, affecting the ability to work with others in a job or get along with neighbors.

Nowhere are children's problems with social cognition more visible than in school, where privacy is minimal and students are constantly interacting with each other. Some students may have social problems independent of academic troubles. For others, social problems may relate to their differences in learning. Dr. Betty Osman, a specialist on differences in learning, has written extensively about the social difficulties of children with attention problems. For example, some students may blurt out an opinion at the wrong time without thinking about the effect it will have on classmates. Others may have difficulty self-monitoring social interactions—or "reading" accurately other people's reactions to them. These children may be perplexed when interactions do not go well.

Dr. Mel Levine, of All Kinds of Minds, divides social cognition into two broad

areas: verbal pragmatics—the ability to use and understand language within social situations—and social behaviors. Within verbal pragmatics, there are five functions. The first, communication and interpretation of feelings, involves conveying feelings through language and correctly understanding another speaker's feelings. Children who have difficulty with this skill may sound angry when they are not or unintentionally antagonize others when asking them for something. Or children may incorrectly feel, for example, that someone speaking to them is being critical when the person did not intend this tone.

Code switching, the second language function of verbal pragmatics, involves speaking appropriately for the context. It means, for example, a child knowing how to speak differently to a teacher than to a peer or to a younger sibling. Children who have difficulty in this area may use words that are too technical or sophisticated when speaking with peers. The third function, topic selection and maintenance, involves knowing what is appropriate to talk about and for how long. Some children may make comments that are too personal or otherwise embarrassing during a class discussion, or they may continue on a topic too long.

The fourth function, humor regulation, entails knowing when it is appropriate to make a joke, making it in the right context, and acknowledging others' attempts at humor. Conversational technique, the fifth function of verbal pragmatics, involves knowing how to engage in the give and take of verbal interactions. It means listening for the

response and input of others and not dominating a conversation.

Social behaviors focus on the nonverbal actions in social situations. Dr. Levine separates them into nine functions. The first, self-marketing, involves developing and displaying an image that is appealing to others, primarily through the way a child dresses and behaves. The second function, social information processing, entails figuring out the true meaning or agenda in a social encounter, such as being aware when someone is trying to be kind or critical. Collaboration, the third function, involves working and playing in a cooperative manner, without conflict.

The fourth social behavior function, initiation technique, involves knowing how to form a relationship or enter into a social activity. It means making friends easily without being too aggressive. Social control regulation, the fifth function, centers around maintaining the right balance of give and take when relating to others, being neither too dominant nor too passive. Timing and staging of relationships, the sixth function, enables children to have a sense of when it is acceptable to do what in a relationship. It involves pacing interactions well and not being too intense or aggressive in new relationships.

Social conceptualization, the seventh social behavior function, entails understanding the meaning of different kinds of relationships. Children who have difficulty in this area may not understand what friendship consists of or requires. Conflict resolution, the eighth function, involves handling interpersonal disagreements without aggression and knowing how to compromise. Political acumen, the ninth function, refers to how well children can nurture positive relationships with people who are important or influential in their lives, such as teachers, mentors, or peer leaders.

Adults can help children who are having difficulty in social cognition. Clinical psychologist Dr. Robert Brooks says adults should empathize with children and try to imagine how a child is feeling. Once adults see how a child views the world, they can work with the child to better understand his or her difficulties. Priscilla Vail, an expert in differences in learning, emphasizes that academics can suffer when children become upset by their negative social interactions. Parents and teachers can alleviate emotional stress associated with social difficulties by providing a safe, supportive environment and listening to their children's worries.

Increasingly, research is showing that children can be given the tools to improve socially, in a similar way to learning strategies to improve writing or math. A study conducted by University of Hawaii special education professor Dr. Mary Anne Prater showed that students who were given direct instruction improved their listening, problem solving, and negotiating—all skills that are needed socially. For example, teachers taught students that listening requires facing the teacher and making eye contact. When students were asked during role play whether they were listening, those who responded affirmatively had to explain the ways in which they were listening well. Students who were taught the same skills in less experiential ways, such as through a discussion about the nature of good social skills, did not do as well.

Richard Lavoie, a teacher and consultant in special education, recommends a strategy called a social autopsy. In this process, an adult works alongside a child with social cognition problems to jointly analyze social errors made by the child. Together, they develop alternative strategies for the child to try. The procedure works best if it is taught to all the adults who have regular contact with a child. With the help of these adults, children are able to participate in

### Helping Children Overcome Problems with Social Cognition

- Encourage a popular child to help a child who is being rejected.
- Establish a school-wide policy of severe consequences for verbal and physical abuse of students with poor social skills—and all students.
- Encourage students to develop their own talents. When possible, emphasize a student's strengths that others might respect.
- Explicitly teach students the vocabulary of social interactions so they can analyze themselves.
- Develop short-term as well as long-term goals for children with social problems so they do not become discouraged that improvement takes time.

several social autopsies—in different settings—during the course of a day. Children are then more likely to generalize strategies for improving social cognition to different life situations.

Dr. Levine and his colleagues suggest that students may benefit from seeing what healthy social interactions look like by watching movies and reading books. Students should be taught that social cognition involves a form of problem solving even more dynamic and instantaneous than figuring out a math equation. Children who have a tendency to be aggressive in social situations need to understand how emotions play a part in their reaction. They may benefit from using such strategies as previewing before responding.

Adults can help children find areas in which to excel that will both use their strengths and be respected by other children. Identifying, building up, and using strengths in sports, artistic endeavors, or in mechanical skills may enhance a child's social well-being. Parents and teachers need to give children hope that they can overcome or work around social difficulties. Most of all, children shouldn't be made to feel inadequate if they are awkward socially. Dr. Levine points out that some children may not want to be social, but it's important that parents and teachers ensure that children are socially adept enough to have the option of choosing whether or not to be social.

## Bibliography

### Articles

- Hayes, Marnell L. "Social Skills: The Bottom Line for Adult LD Success." [www.ldonline.org](http://www.ldonline.org)
- Lavoie, Richard. "Social Competence and the Child with Learning Disabilities." [www.ldonline.org](http://www.ldonline.org)
- Osman, Betty. "My Brother Is Different." [www.ldonline.org](http://www.ldonline.org)
- Prater, Mary Anne, Susan Bruhl, and Loretta A. Serna. "Acquiring Social Skills Through Cooperative Learning and Teacher-Directed Instruction." *Remedial and Special Education* 19, no. 3 (May/June 1998): 160–172.
- Prater, Mary Anne, Loretta Serna, and Kayleen K. Nakamura. "Impact of Peer Teaching on the Acquisition of Social Skills by Adolescents with Learning Disabilities." *Education and Treatment of Children* 22, no. 1 (February 1999): 19–22.
- Thompson, Sue. "Nonverbal Learning Disabilities." [www.ldonline.org](http://www.ldonline.org)
- Vail, Priscilla. "Learners and Apple Pie." [www.childparenting.about.com](http://www.childparenting.about.com)
- Wingert, Pat. "Focus on Family: Kids Who Don't fit In." *Newsweek* (March 22, 1999).

### Web Sites

- <http://www.allkindsofminds.org> (LearningBase) "Learning to Relate to Others."
- [www.ldonline.org](http://www.ldonline.org) "Social Skills Milestones."

## Resources

Below is a list of resources offering more information about social cognition and its impact on the school-age child's social and academic life.

### Web Sites

#### All Kinds of Minds

<http://allkindsofminds.org> Explores how children's verbal and social skills can affect their school experience. The Library section of the site includes case studies and articles such as "What's Seen on the Social Scene" by Dr. Mel Levine. The site's LearningBase offers further guidance and references for teachers and parents in the feature, "Learning to Relate to Others."

#### ERIC Clearinghouse on Reading, English, and Communication (ERIC/REC)

<http://eric.indiana.edu> Offers a large collection of educational articles regarding the development of children's social abilities; search the database to locate articles for parents, teachers, counselors, and children.

#### LD Online

[www.ldonline.org](http://www.ldonline.org) Links to advice from experts, articles and other resources on the topic of social cognition. See the LD in Depth section of the site to find archived articles under "Social."

#### Nonverbal Learning Disorder (NLD)

[www.nldontheweb.org](http://www.nldontheweb.org) Gives state by state resources, other Internet links, and a library of topics covering nonverbal learning issues, including socialization difficulties.

#### Office of Special Education Programs

[www.ed.gov/offices/OSERS/OSEP/index.html](http://www.ed.gov/offices/OSERS/OSEP/index.html) Offers fact sheets outlining the importance of instruction for improving social abilities, as well as some key variables to consider in the classroom; links to other resources for children, their families, and teachers.

#### Schwab Learning

[www.schwablearning.org](http://www.schwablearning.org) Gives families information for identifying and managing differences in learning and resources for connecting with others; provides information in both Spanish and English.

### Articles and Pamphlets

DeGeorge, Katherine. **Friendship and Stories.** *Intervention in School and Clinic* 33, no. 3 (January 1998):157–162. Proposes ways to use children's literature in teaching children how to begin and maintain friendships; available online at [www.ldonline.org/ld\\_indepth/teaching\\_techniques/childlit\\_socskills.html](http://www.ldonline.org/ld_indepth/teaching_techniques/childlit_socskills.html)

Katz, Lilian G., and Diane E. McClellan. **Fostering Children's Social Competence: The Teacher's Role.** Washington, D.C.: National Association for the Education of Young Children, 1997. Presents ways teachers can foster children's social competence. Teacher's experiences and illustrations are provided. Text is available online (as item #ED413073) through the ERIC Database mentioned under Web Sites.

McIntosh, Ruth, S. Vaughn, and N. Zaragoza. **A Review of Social Interventions for Students with Learning Disabilities.** *Journal of Learning Disabilities* 24, no. 8 (October 1991): 451–466. Explores results of a study on effectiveness of social skill interventions on children (of different age groups) with differences in learning; available online (as item #EJ437709) through the ERIC Database mentioned above.

Siegel, Ann. **Learning the Language of Relationships.** *Learning Disabilities Association Newsbriefs* (May/June, 1998). Highlights the foundations of social skills, with special emphasis on communication and relationships. Full text is available at [www.ldonline.org/ld\\_indepth/social\\_skills/language\\_relationships.html](http://www.ldonline.org/ld_indepth/social_skills/language_relationships.html)

## Books

Brooks, Robert, and Sam Goldstein. **Raising Resilient Children.** Chicago, IL: Contemporary Books, 2001. Offers advice for parents based on research on resilience: how some children can overcome the odds while others don't learn to cope as well; describes effective strategies for parents to provide a positive learning and social environment for their children.

Campbell, Pam, and Gary N. Siperstein. **Improving Social Competence: A Resource for Elementary School Teachers.** Boston, MA: Allyn & Bacon, 1994. Helps teachers develop the knowledge and skills necessary to support their students' social functioning in the classroom.

Csoti, Marianna. **People Skills for Young Adults.** London, England: Jessica Kingsley Publishers, 1999. A curriculum to improve social cognition of adolescents, including those with mild learning differences; contains teacher materials and reproducible sheets for students; addresses relationships, self-confidence, assertiveness, and listening.

Duke, Marshall, Elisabeth Martin, and Steven Nowicki, Jr. **Teaching Your Child the Language of Social Success.** Atlanta, GA: Peachtree Publishers, 1996. Shows parents and educators how to offer children the tools they need to establish and maintain relationships; addresses verbal and non-verbal communication.

Giler, Janet. **Socially ADDEpt: A Manual for Parents of Children with ADHD and/or Learning Disabilities.** Santa Barbara, CA: C.E.S., 2000. Helps parents instruct their children in the hidden rules for communication that result in rewarding friendships. Workbook format guides parents through suggested dialogues and a series of exercises that will address teasing, body language, humor, and group dynamics.

Hallowell, Edward. **Connect.** New York: Pantheon Books, 1999. Demonstrates the importance of connecting with other people and having the skills to do so. This book suggests that interpersonal connections can influence mental and physical health.

Knapczyk, Dennis, and Paul Rodes. **Teaching Social Competence: A Practical Approach for Improving Social Skills in Students at Risk.** Pacific Grove, CA : Brooks/Cole Publishing Co., 1996. Outlines ways to assess behavior and possible interventions for children who struggle socially. Designed to support teachers in training.

Levine, Melvin D. **A Mind at a Time.** New York: Simon and Schuster, 2002. Familiarizes the general public with the author's eight constructs (called "capabilities" in the book); provides real life stories of children, adolescents, and adults who have struggled with their neurodevelopmental profiles. The book also describes systematic approaches to dealing with differences in learning, and it concludes with chapters on what ideal homes and schools should be doing to foster the optimal development of all kinds of minds.

Levine, Melvin D. **Developmental Variations and Learning Disorders, 2d ed.** Cambridge, MA: Educators Publishing Service, 1998. Offers comprehensive information about developmental variations in children that can lead to learning difficulties, and explores research from different disciplines; useful for clinicians, educators, and parents.

Levine, Melvin D. **Educational Care, 2d ed.** Cambridge, MA: Educators Publishing Service, 2002. Covers key themes in academic performance. The book is intended to be a practical guide to the understanding and collaborative management of differences in learning. For each topic, there are recommendations regarding what needs to be done at home and in school to help a struggling child or adolescent succeed.

Marano, Hara Estroff. **Why Doesn't Anybody Like Me? A Guide to Raising Socially Confident Kids.** New York: William Morrow & Co., 1998. Social success is one of the greatest determinants of a child's being happy in school. This book stresses play as a venue for developing social cognition and highlights what parents can do to help their children improve social interactions.

McGinnis, Ellen, and Arnold P. Goldstein. **Skillstreaming the Elementary School Child: New Strategies and Perspectives for Teaching Prosocial Skills.** Champaign, IL: Research Press, 1997. Offers strategies to help children survive in a number of social situations including the classroom, making friends, understanding their own and other's feelings, alternatives to aggression, and dealing with stress. Student manuals, assessment forms, skill cards, and video also available through the publisher.

Osman, Betty. **No One to Play With.** Novato, CA: Academic Therapy Publications, 1996. Provides real life stories of parents whose children are having trouble navigating the social scene. Many strategies are suggested.

Richardson, Rita. **Connecting with Others: Lessons for Teaching Social and Emotional Competence: Grades 3-5.** Champaign, IL: Research Press, 1996. Helps students learn to be sensitive to one another, respect differences, and resolve conflicts peacefully; organized in an easy-to-use curriculum format for teachers. Versions available for children in grades K-2 and 6-8.

## Audio and Videotapes

All Kinds of Minds. **Sorry, This Seat is Saved: Social Failure and Rejection in Childhood (audio).** Part of the *Reaching Minds* audiotape series. In this tape, Drs. Melvin Levine and Steven Asher discuss ways to support the child with weak social cognition. Ordering information is online at [www.allkindsofminds.org](http://www.allkindsofminds.org)

Lavoie, Richard. **Last One Picked . . . First One Picked On: Learning Disabilities and Social Skills (video).** Offers teachers and parents guidelines for supporting the social development of children. A PBS video can be ordered online at: [www.ldonline.org/ld\\_store/lavoie\\_lastone](http://www.ldonline.org/ld_store/lavoie_lastone)

Sunburst Video. **Learning Relationship Skills (video).** Addresses communication, body language, assertiveness, conflict resolution, and healthy relationships. A simple outline makes this an easy referral tool for children; available for purchase at [www.sunburst.com](http://www.sunburst.com)

## Resources for Children and Adolescents

### LD Online—KidZone

[www.ldonline.org/kidzone/speak\\_up](http://www.ldonline.org/kidzone/speak_up)

Provides kids with tips on getting along better in school, as well as an online bulletin board called “Just for Kids.”

### Romain, Trevor. **Cliques, Phonies, & Other**

**Baloney.** Minneapolis, MN: Free Spirit

Publishing, 1998. Provides practical advice to children ages 9–12 on how to form positive relationships; explains with humor what cliques are and why they continue to exist.

### Crary, Elizabeth. **I Want to Play (Children’s Problem Solving Book).** Seattle, WA:

Parenting Press, 1996. Explores alternative ways to make friends and the possible consequences of particular actions; appropriate for ages 4–8.

### Levine, Melvin D. **All Kinds of Minds.**

Cambridge, MA: Educators Publishing Service, 1993. Written for a children ages 7–11, this book clearly outlines the neurological reasons for learning differences and their effect on life at home and at school.

### Levine, Melvin D. **Jarvis Clutch, Social Spy.**

Cambridge, MA: Educators Publishing Service, 2001. Helps students learn about the components of social cognition. Jarvis Clutch, a very amusing and personable 14-year-old middle-school student, spies on his classmates and makes observations regarding their social lives and abilities. Dr. Mel Levine provides ongoing commentary and introduces students to the many aspects of social cognition (such as code switching, self-marketing, conflict resolution, and conversation). Students get an opportunity to rate their own social cognitive abilities at the end of the book.

### Levine, Melvin D. **Keeping A Head in School.**

Cambridge, MA: Educators Publishing Service, 1990. Helps children ages 11 and older understand and appreciate their own distinct learning profiles; offers different ways to bypass or strengthen weaker functions.

Levine, Melvin D., Carl Swartz, and Melissa Wakely. **The Mind That’s Mine.** Cambridge, MA: Educator Publishing Service, 1997. Helps young children discover what goes on inside their brains when they are thinking and learning; available at: [www.allkindsofminds.org](http://www.allkindsofminds.org)

## Credits

The *Developing Minds* video library is produced by the Educational Programming and Outreach department, Special Telecommunications Services division of the WGBH Educational Foundation.

### WGBH Educational Foundation

#### Executive Producer

Michele Korf

#### Project Director

Laurie Everett

#### Curriculum Director

Denise Blumenthal

#### Producers

Philip Gay  
Denny Houghton

#### Series Editor

Glenda Manzi

#### Associate Producer

Laura Azevedo

#### Production Coordinators

Judy Bourg  
Sandra Lapa

#### Production Manager

Mary Ellen Gardiner

#### Director of Educational Print and Outreach

Karen Barss

#### Manager of Educational Print

Sonja Latimore

#### Project Director

Pamela R. Giller

#### Associate Editor

Gay Mohrbacher

#### Production Coordinator

Amy Kittenplan Hubbard

#### Writer

Warger, Eavy and Associates  
Reston, VA

#### Background Article Writer

Beth Daley

#### Researchers

Susan Buckley  
Corinne Pierce

#### Design

Janet Bolton  
Julie DiAngelis  
Katie Hogan  
Gaye Korbet  
Daryl Myers  
Scott Thorpe

#### All Kinds of Minds

Mel Levine, M.D.

#### Cofounder

Mark Grayson

#### Executive Director

Carl Swartz, Ph.D.

#### Research Faculty

Tamara Nimkoff, M.A.

#### Research Faculty

#### Project Advisors

Cynthia Mata Aguilar  
Education Development Center  
Newton, MA

Robert B. Brooks, Ph.D.  
Harvard Medical School  
Boston, MA

Rose Christiansen  
Lincoln School  
Brookline, MA

Drake D. Duane, M.D.  
Institute for Developmental  
Behavioral Neurology  
Scottsdale, AZ

Edwin S. Ellis, Ph.D.  
University of Alabama  
Tuscaloosa, AL

Nancy R. Hester  
Durham Public Schools  
Durham, NC

Lauren Katzman, Ed.D.  
Harvard University  
Cambridge, MA

Steven Leonard, Ed.D.  
Jeremiah E. Burke High School  
Boston, MA

Louisa C. Moats, Ed.D.  
WICHD Early Intervention Project  
Washington, D.C.

Michael W. Spence  
Parsons, Howland & Spence, Inc.  
Boston, MA

Ann Stern, Ph.D.  
Educational Consultant  
Waban, MA

Elisabeth H. Wiig, Ph.D.  
Knowledge Research Institute, Inc.  
Arlington, TX

#### Guide Content Reviewers

Michelle Bisson  
Parent  
Merrimac, MA

Catherine Boyle  
Parent  
Winchester, MA

Corrine M. Collar  
Curriculum Specialist  
Revere Public Schools  
Revere, MA

Lisa Guisbond  
Parent  
Brookline, MA

L. Lynn LeSueur, Ph.D.  
Psychology Assessment Center  
Massachusetts General Hospital  
Boston, MA

Kim Pedersen  
Shore Country Day  
Beverly, MA

Penny Prather, Ph.D.  
Educational Enhancement Center  
Newton Center, MA

Joan Sedita  
Educational Consultant  
Boxford, MA

Bonnie D. Singer, Ph.D.  
Educational Enhancement Center  
Newton Center, MA

Sarah Shmitt  
Portland High School  
Portland, ME

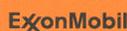
Elsie Wu  
Bancroft Elementary School  
Andover, MA

*Developing Minds* is a production of WGBH Boston in association with All Kinds of Minds.

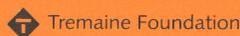


Major funding for *Developing Minds* is provided by Schwab Learning, a program of the Charles and Helen Schwab Foundation; ExxonMobil Foundation; Spencer T. and Ann W. Olin Foundation; Emily Hall Tremain Foundation; The Roberts Foundation; and Geraldine R. Dodge Foundation.

 *Developing Minds* is closed captioned for viewers who are deaf or hard of hearing.



SPENCER T. AND ANN W. OLIN FOUNDATION



THE ROBERTS FOUNDATION



GERALDINE R. DODGE FOUNDATION

To order any of the *Developing Minds* videos or the complete library, contact WGBH Boston Video at 800-949-8670, or visit [www.wgbh.org](http://www.wgbh.org). For more information about programs and services offered by All Kinds of Minds, call 888-956-4637 or visit [www.allkindsofminds.org](http://www.allkindsofminds.org)

©2002 WGBH Educational Foundation and All Kinds of Minds.

WG1259

ISBN 1-57807-764-8



UPC

7 83421 34543 0