Social ThinkinG®

Teaching Social Competencies—More Than Social Skills

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Concept #7: Smart Guess

Presented by: Michelle Garcia Winner, SLP, MA-CCC

Moderated by: Pamela Crooke, SLP, PhD-CCC

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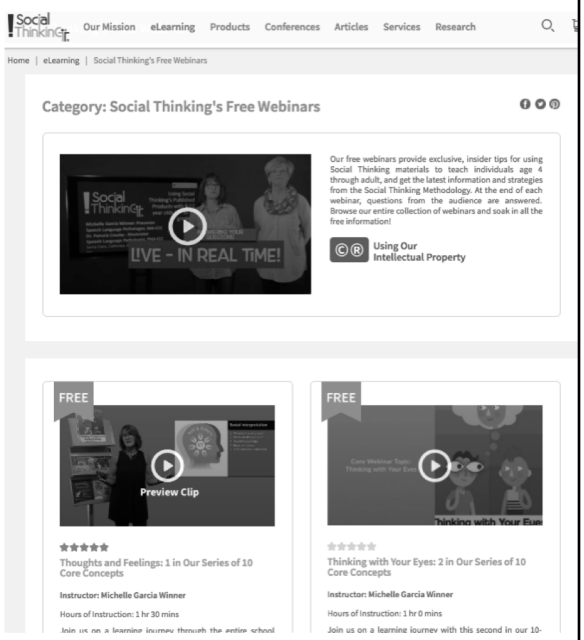
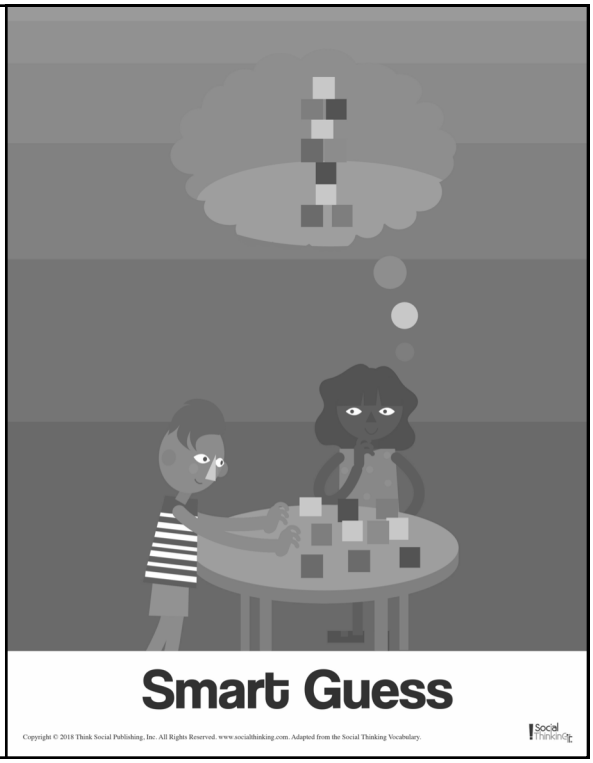


Today's webinar topic:



As I developed Social Thinking's early lessons I was noticing that bright 6- and 7-year-old children were getting really upset when asked to make a guess.

They seemed to think every "guess" was wacky, and that facts made sense, but guesses did not!

Smart Guess vs Wacky Guess

- **Smart guess**: Take what you know and make a guess.
- **Wacky guess**: You don't have enough information to make a guess.

Tip: Teachers always want smart guesses.

The term "smart guess" encourages a meta-cognitive discussion about individuals using what they know to figure things out.

The 6 previous Social Thinking concepts all require *smart guesses*; we just didn't tell the student about it until now.

1. People have thoughts and feelings we need to figure out.
2. Think with your eyes (joint attention)
3. Read the group plan
4. Body in the group
5. Whole body listening
6. Expected and unexpected behavior

In the UK the word "smart" in *smart guess* can create a challenge with students. In British English, the word "smart" is used to discuss fashion sense.

As we travel to countries that speak different languages, such as Israel and Hong Kong, we've observed teams try to figure out the best way to translate the core Social Thinking Vocabulary in their language.

In each language, adults have to make *smart guesses* to figure out the best words in their native language to describe these 10 Social Thinking Vocabulary concepts.

These concepts are part of our humanity, the words we use to describe them are part of a language's culture.

Most brains are designed to engage in the process of making smart guesses (inferencing) from birth.

The neural networks are complicated, and to date lack full description.

David J. Heeger. Theory of cortical function. *PNAS*, February 2017 DOI: 10.1073/pnas.1619788114

The neurotypical brain is designed to figure things out, to make sense of the world, technology, people, social communication, etc.

We make sense of what has happened, what is happening, and what might happen—and what we should do to limit bad things that could happen!

Counterfactual Reasoning: Describes a process of how our minds explore our future options to help us make choices as to what to do in the here and now.

We can also use counterfactual reasoning to engage in pretend/shared imaginative play, write a novel, invent a new product, etc.

3 Components of counterfactual reasoning:

1. Disengage from current reality
2. Make inferences about events and scenarios that would exist in alternate reality
3. Keep these alternatives separate from reality

Weisberg & Gopnick (2013) Pretense, Counterfactuals, and Bayesian Causal Models: Why What Is Not Real Really Matters. Cognitive Science 37 (2013) 1368–1381

Brains make inferences at the conscious level (social problem solving) and unconscious level (driving a car) or a combination of the above (social conversations).

Dr. Charles Wallis (2017), Chapter 4: Inferences and Human Inference Abilities

"Inferences function to help people to adapt to the world by transforming information, by generating new information, and even by allowing one to discover bad information and inconsistencies in order to correct or discard them."

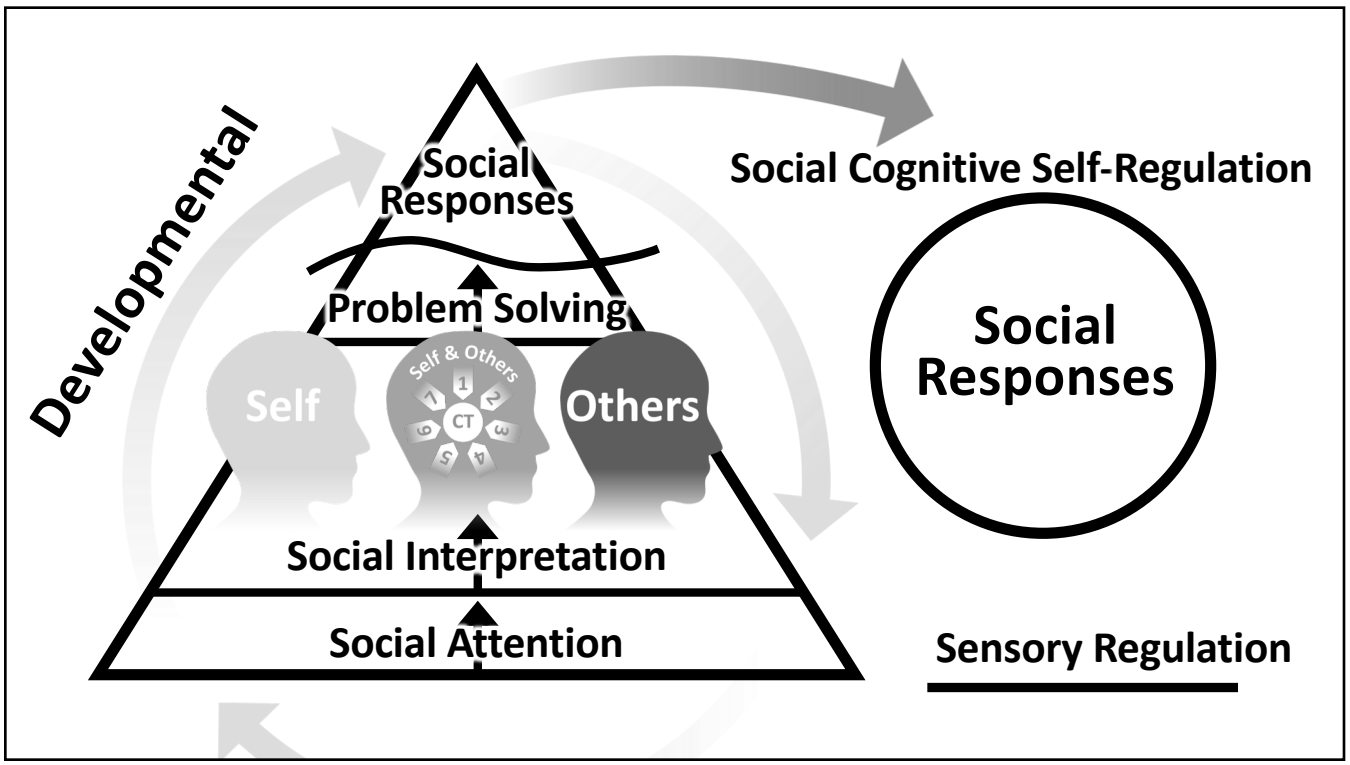
Dr. Charles Wallis (2017), Chapter 4: Inferences and Human Inference Abilities

Inferential thinking leads us to *critical thinking*

Considered a must for 21st century employees.

Social Thinking's Social Competency Model

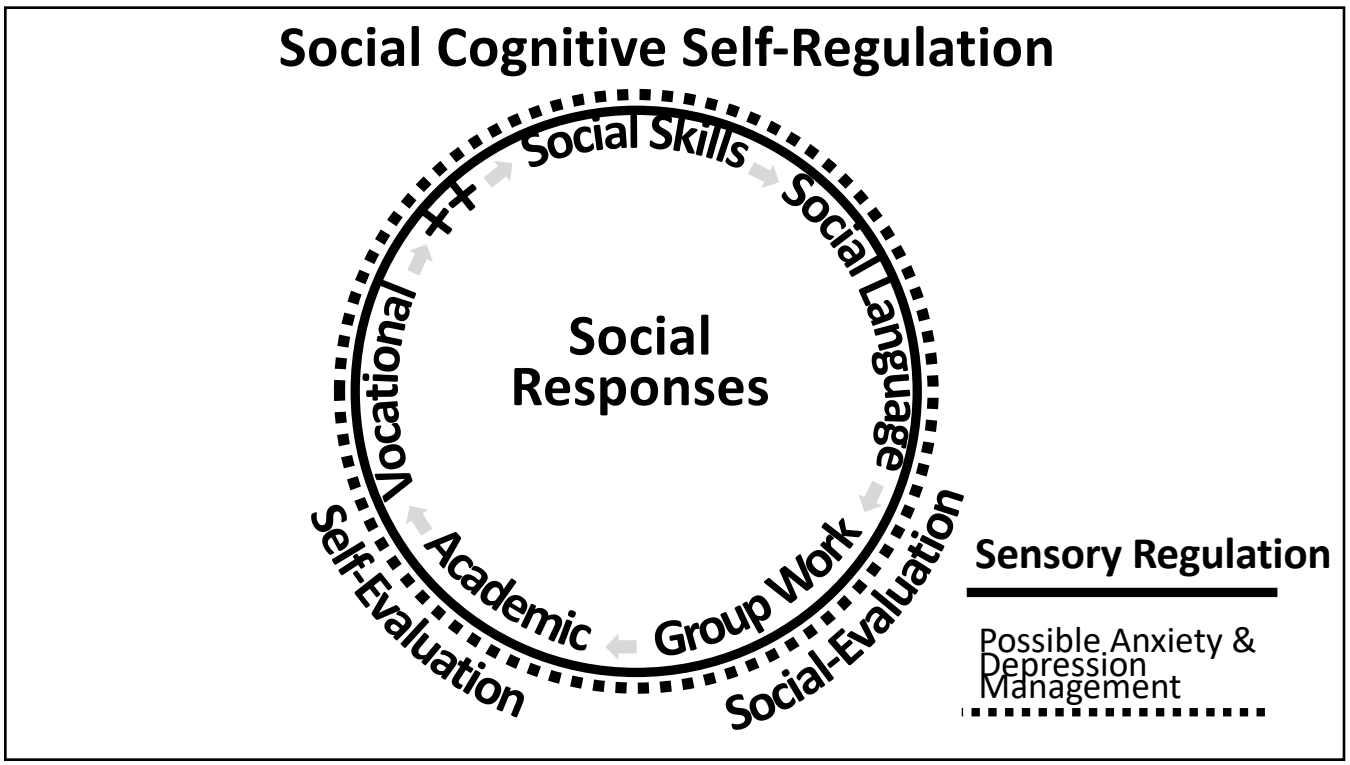
What's the role of smart guesses in developing social competencies?



Social Interpretation

1. What is the situation?
2. Who are the people?
3. World knowledge
4. Basic emotions
5. Self-conscious emotions
6. Basic theory of mind
7. Advanced, applied, spontaneous theory of mind

CT = Critical thinking



To figure out how to respond in the social world requires us to consider and combine:

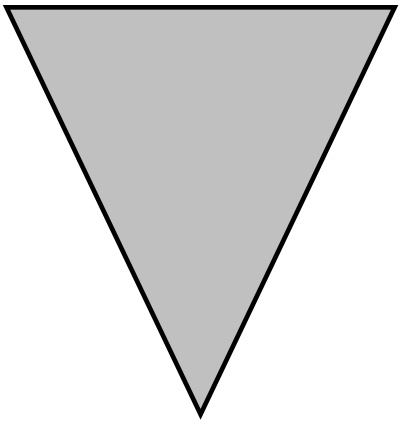
- Context:
  - The situation (where are you?)
  - The people (what do you know about them?)
- World knowledge (what do you know about this type of context?)
- Counterfactual reasoning or future thinking (problem solving), to imagine what may happen next, etc.

Dr. Wallis also describes two forms of inference:

Inductive: Inferences create information previously unavailable

Deductive: Inferences make inexplicit information explicit and available for use

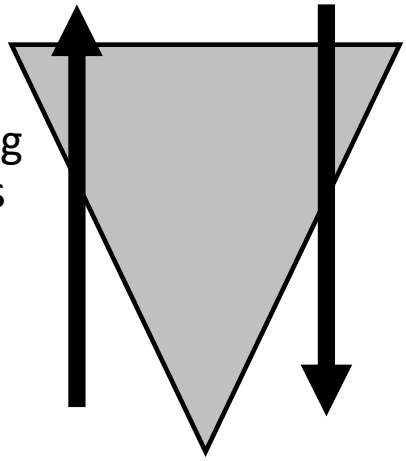
Conceptual thinking – Top-down thinking



Detailed thinking – Bottom-up thinking

Conceptual thinking – Top-down thinking

Deductive reasoning can be described as bottom-up. Details connected to form concept.



Inductive reasoning or inferencing can be described as top-down. Conceptual to detailed thinking.

Detailed thinking – Bottom-up thinking

Our students can have excellent deductive (scientific) thinking but weak inductive (social) thinking.

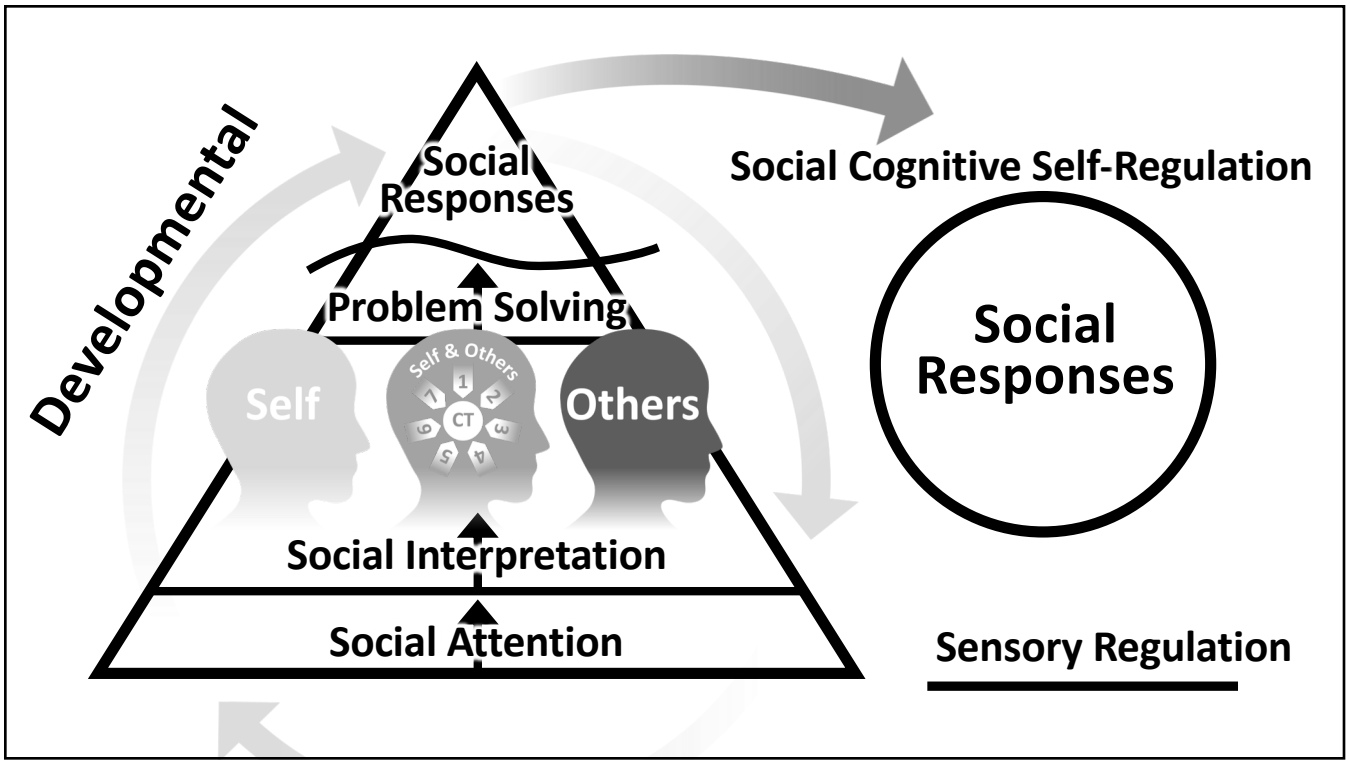
This can be confusing! How can a student appear so smart with numbers and formulas and so unaware of how they are affecting their peers?

Making sense of people in context requires us to use inductive thinking.

Ameriquest Mortgage:

Social Thinking's Social Competency Model

What's the role of smart guesses in developing social competencies?

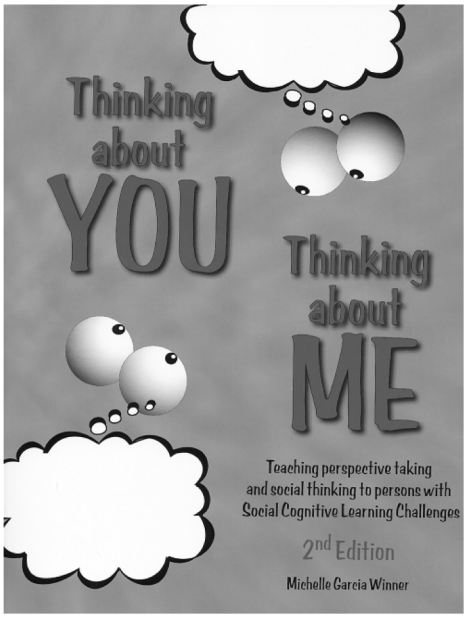


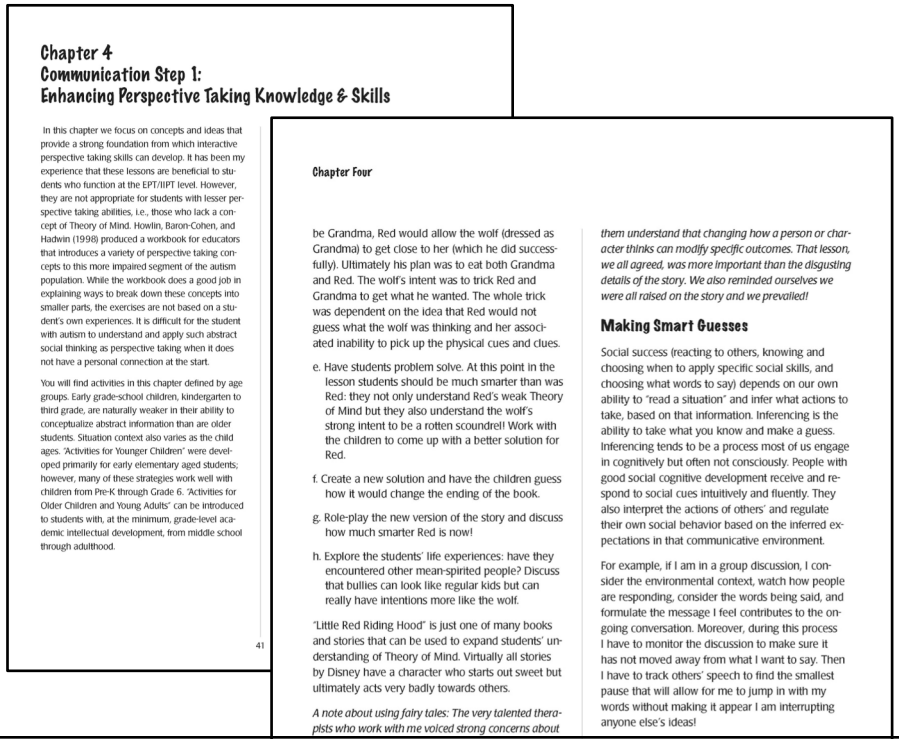
An engineer with a PhD asks:

How can I be so good at problem solving code, and so limited at problem solving people?

Social communication is like a social competency chess game

Teaching this to adult interventionists





Chapter 4
Communication Step 1:
Enhancing Perspective Taking Knowledge & Skills

In this chapter we focus on concepts and ideas that provide a strong foundation from which interactive perspective taking skills can develop. It has been my experience that these lessons are beneficial to students who function at the EPT/IIPT level. However, they are not appropriate for students with lesser perspective taking abilities, i.e., those who lack a concept of Theory of Mind. Howlin, Baron-Cohen, and Hadwin (1998) produced a workbook for educators that introduces a variety of perspective taking concepts to this more impaired segment of the autism population. While the workbook does a good job in explaining ways to break down these concepts into smaller parts, the exercises are not based on a student's own experiences. It is difficult for the student with autism to understand and apply such abstract social thinking as perspective taking when it does not have a personal connection at the start.

You will find activities in this chapter defined by age groups. Early grade-school children, kindergarten to third grade, are naturally weaker in their ability to conceptualize abstract information than are older students. Situation context also varies as the child ages. "Activities for Younger Children" were developed primarily for early elementary aged students; however, many of these strategies work well with children from Pre-K through Grade 6. "Activities for Older Children and Young Adults" can be introduced to students with, at the minimum, grade-level academic intellectual development, from middle school through adulthood.

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Chapter Four

be Grandma, Red would allow the wolf (dressed as Grandma) to get close to her (which he did successfully). Ultimately his plan was to eat both Grandma and Red. The wolf's intent was to trick Red and Grandma to get what he wanted. The whole trick was dependent on the idea that Red would not guess what the wolf was thinking and her associated inability to pick up the physical cues and clues.

e. Have students problem solve. At this point in the lesson students should be much smarter than was Red: they not only understand Red's weak Theory of Mind but they also understand the wolf's strong intent to be a rotten scoundrel! Work with the children to come up with a better solution for Red.

f. Create a new solution and have the children guess how it would change the ending of the book.

g. Role-play the new version of the story and discuss how much smarter Red is now!

h. Explore the students' life experiences: have they encountered other mean-spirited people? Discuss that bullies can look like regular kids but can really have intentions more like the wolf.

"Little Red Riding Hood" is just one of many books and stories that can be used to expand students' understanding of Theory of Mind. Virtually all stories by Disney have a character who starts out sweet but ultimately acts very badly towards others.

A note about using fairy tales: The very talented therapists who work with me voiced strong concerns about them understand that changing how a person or character thinks can modify specific outcomes. That lesson, we all agreed, was more important than the disgusting details of the story. We also reminded ourselves we were all raised on the story and we prevailed!

Making Smart Guesses

Social success (reacting to others, knowing and choosing when to apply specific social skills, and choosing what words to say) depends on our own ability to "read a situation" and infer what actions to take, based on that information. Inferencing is the ability to take what you know and make a guess. Inferencing tends to be a process most of us engage in cognitively but often not consciously. People with good social cognitive development receive and respond to social cues intuitively and fluently. They also interpret the actions of others' and regulate their own social behavior based on the inferred expectations in that communicative environment.

For example, if I am in a group discussion, I consider the environmental context, watch how people are responding, consider the words being said, and formulate the message I feel contributes to the ongoing conversation. Moreover, during this process I have to monitor the discussion to make sure it has not moved away from what I want to say. Then I have to track others' speech to find the smallest pause that will allow for me to jump in with my words without making it appear I am interrupting anyone else's ideas!

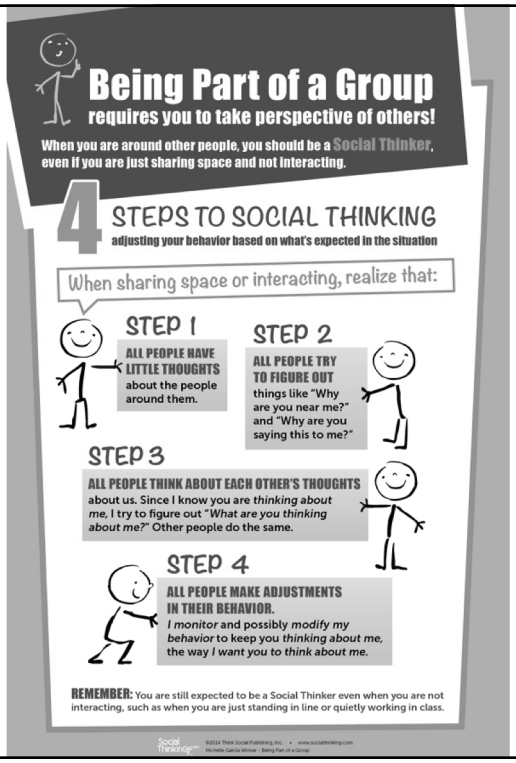
Challenges in inferential thinking:

3rd grade: math knowledge vs math estimates

Student with Asperger's Syndrome: *Why would you make a guess when you actually know the answer?*

Four Steps of Perspective Taking

1. I think about you and you think about me.
2. I think about your motives and intentions.
3. I think about what you are thinking about me.
4. I monitor my behavior and possibly adapt it to try to keep you thinking and feeling about me the way I want you to think and feel about me!



Self-regulation in a social situation requires smart guesses.

- What behaviors are expected in different situations?
- How do they make people feel?
- How can I learn to figure out what is going on inside of me, and explain it, without showing rage?

Social-Emotional Chain Reaction

Situation and people_____

Expected behaviors 

Unexpected behaviors 

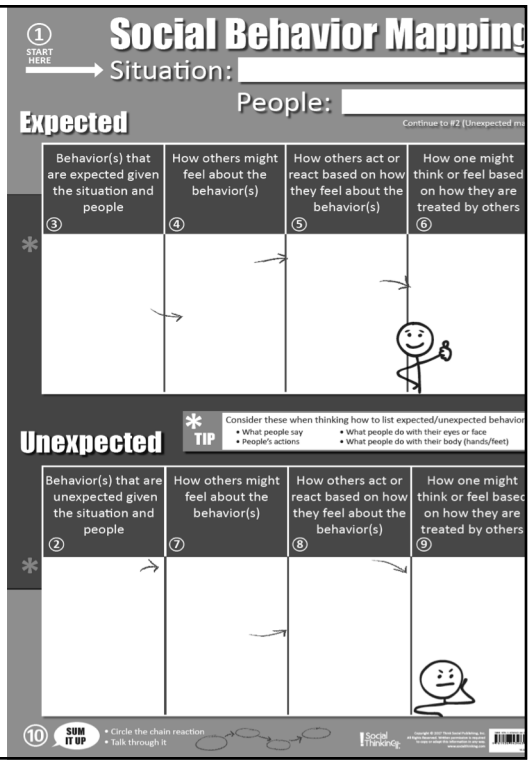
- How the doer behaves affects how others feel and think
- Which affects how they react and respond to the doer
- Which affects how the doer feels, thinks, and responds

Context: Situation and People

Four columns across each row

First row:
Expected behavior and the social-emotional chain reaction

Second row:
Unexpected behavior and the social-emotional chain reaction

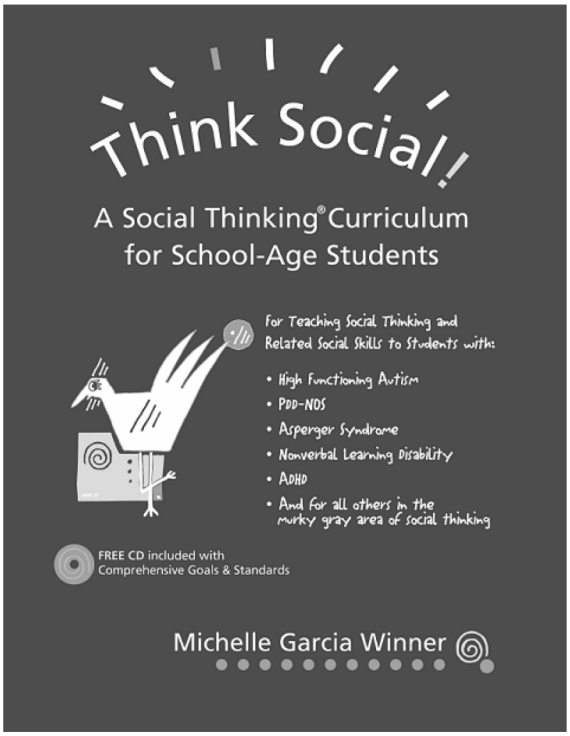


How do we teach about smart guessing to kids of different ages?

Teachers talk about:

- First____, then_____ (preschool)
- Predictions (1st-2nd grade)
- Inferences
- Figurative language (3rd grade)
- Foreshadowing what a character may do in a book, movie, etc. (reading comprehension)
- Critical thinking
- Problem solving how to work as a group

Understanding what someone tells us (receptive language) in the classroom, within curriculum and socially requires us to make smart guesses.



Section 4

Starting the Detective Agency: Learning More About Observing Others

In this section we will provide more sophisticated information regarding being part of a group. These lessons help students with their academic curriculum by teaching them explicitly about making educated or "smart guesses."

We are also working on observation skills by learning how to "think with our eyes" and make predictions, as well as beginning to explore how emotions are a very real part of relating to and understanding others.

How do these lessons relate to classroom participation?

As children develop literacy and written expression, it is critical not only that they be able to interpret people's thinking but also that they can predict what might happen next based on information learned from context. In the lesson below, we encourage students to think like a detective in order to develop critical thinking skills needed for both reading comprehension and expressing themselves through writing.

A Range of Ages

The lessons in this section are good for students of all ages; in fact they are good for adults as well. However, when working with the older student (middle school and beyond), **do not** use the detective agency concept. Instead just talk about how each of us really is a "social spy" or "social observer" when sharing space in any environment.

Remember, do not assume your students know how to observe social information just because they are older.

You may also want to refer to Dr. Mel Levine's book *Jarvis Clutch: Social Spy* for more lessons for older kids.

Tools & Materials

- Movie or TV clips that show clearly animated faces in scenes (recommended: "Toy Story 1" or "Toy Story 2," or soap opera type shows shown without the sound)
- Building blocks, Lego toys or a puzzle to be used within a group activity
- Books, pictures and other published curriculums to explore feelings and emotions
- Book: ***Thinking About YOU - Thinking About ME:*** Social Behavior Mapping
- Book: *The Incredible 5 Point Scale*

Critical Vocabulary & Concepts

- Be a detective: watching people/observing
- Making a guess: prediction
- Figuring out people's plans from observing
- Smart guess - Wacky guess
- Identify feelings

Lesson 17: Smart Guess – Wacky Guess

Critical Vocabulary
Smart guess
Wacky guess

Being a **social thinker** means you have to be a **flexible thinker.** Part of thinking socially is being able to make smart or educated guesses about what people are thinking, what they may be about to do, what you should do given the situation, etc.

At the same time, the academic curriculum demands that we also begin to make guesses by predicting outcomes in literature and social studies, schedules and mathematical word problems.

Many of our students with social thinking challenges do not know it is expected that they should actively be making guesses about the world around them and about the school work they are doing. While they may make excellent guesses about their own areas of interest, it is surprising how hard it is for them to apply this same set of skills to information they do not find intrinsically interesting.

This set of lessons familiarizes students with the process of making smart guesses, and reinforces smart guessing as an important part of being with others and learning information beyond the facts in school.

Videotape some of your lessons to use in the "video moment" activity at the end of this section.

Smart Guess - Wacky Guess
Student Worksheet

Name _____ Date _____

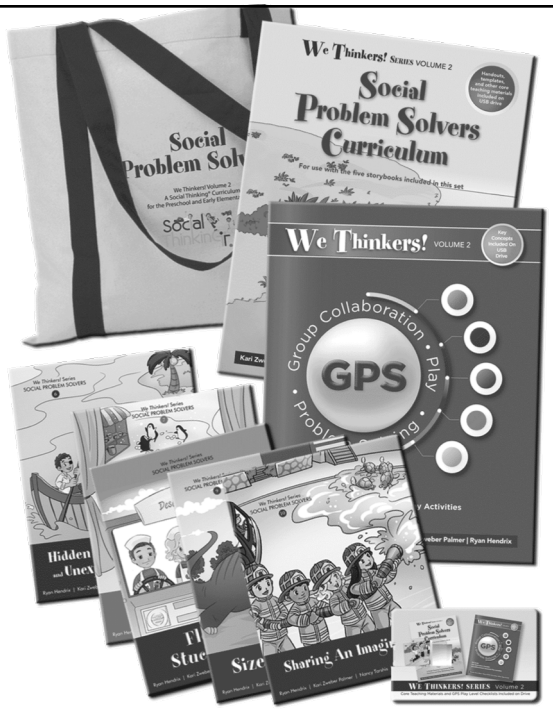
Smart Guesses are guesses you make based on some information you have already learned. When you make this type of guess you try and figure out the next logical piece of information based on what you already know.

Wacky Guesses are guesses you make when you do not have enough information. Wacky guesses are when people try and make you guess something you have no information about. Teachers do not usually ask you to make these guesses in your school work.

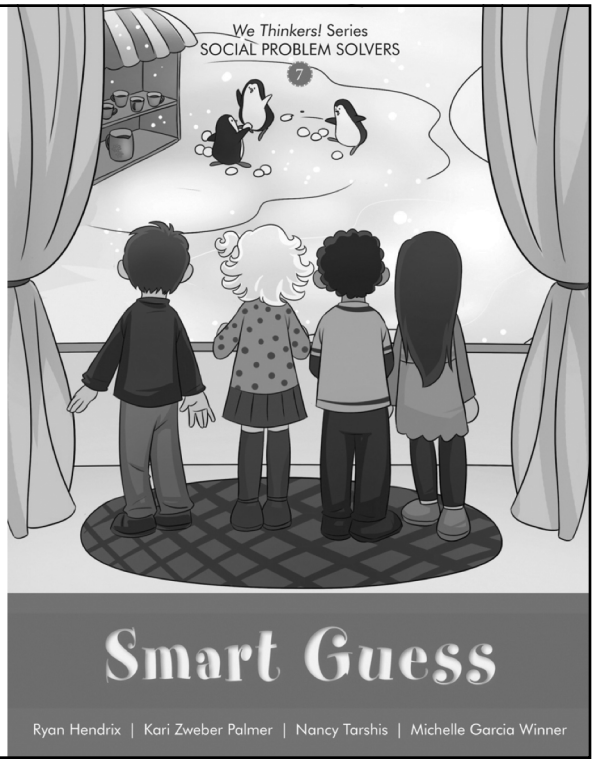
List 3 Smart Guesses You Can Make	List 3 Wacky Guesses You Can Make
Make one smart guess about what your mom will do tonight when she is home.	Make a wacky guess about what is going on in a kindergarten class right now.
Make a smart guess about what your teacher is going to teach in your next Math class.	Make a wacky guess about what your teacher is having for dinner tonight.
Make a smart guess about what you have to do as soon as you get to your class in the morning.	Make a wacky guess about who the principal will be talking to at 3 p.m.

We Thinkers! Volume 1
Social Explorers
(ages 4-7)

We Thinkers! Volume 2
Social Problem Solvers
(ages 4-7)



Smart Guess is our 7th book and teaching concept introduced in our early learning series.

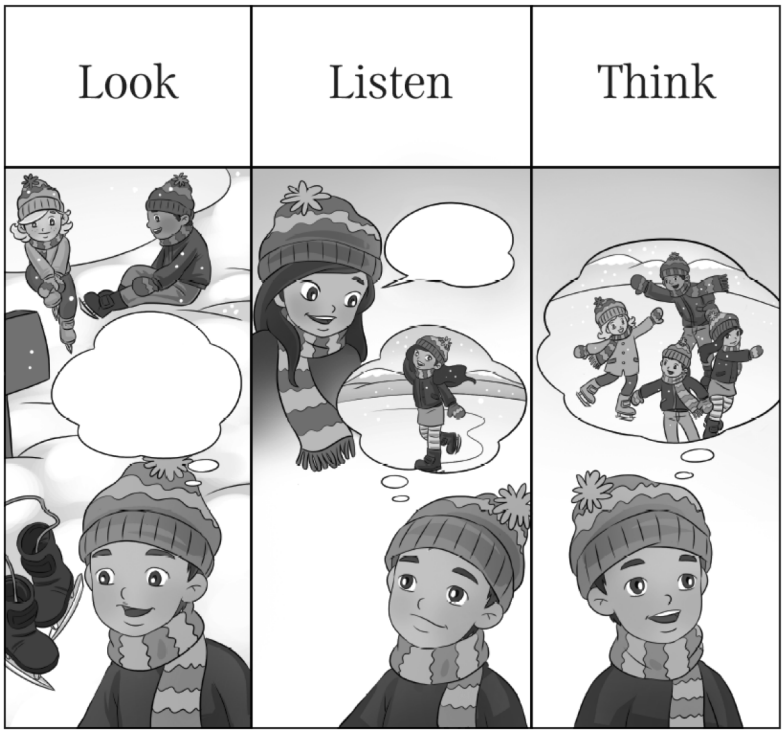


Molly wants the others to make a smart guess about her plan. Ellie and Jesse see Molly holding ice skates. They make a smart guess she wants to go ice skating. Evan is not looking at or thinking about Molly.

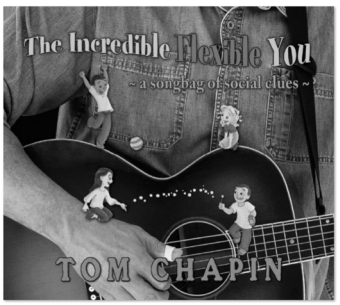
He guesses she wants to make a pizza. That's a wacky guess! You don't make pizza in the snow!

Molly tells the kids she can't wait to race across the ice.

Evan hears this and thinks with his eyes to see Molly lacing up her skates.



Look, listen, think, go! Evan thinks about what he sees, what he hears, and what he knows and makes a smart guess.



Look, Think, Guess, Know

Words and music by Tom Chapin & Phil Galdston

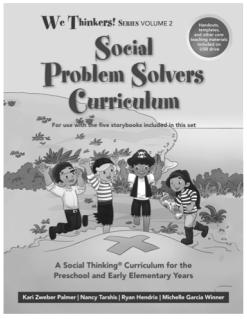
If everybody sits down and they all gather 'round
Can you guess that I'm thinking? It's circle time!
If your teacher has a book and she's asking you to look
Can you think that I'm guessing? It's story time!
First you take a good long look and
And then you think it through
And if you make a real smart guess
Maybe you'll know, yes!
Maybe you'll know, yes!

Look, think, guess, go!
Pretty good chance you're gonna know
Look, think, guess, go!
Mighty good chance you'll know.

When we gather up the blocks and we throw 'em in a box
Can you guess what I'm thinkin'?
It's Cleanup Time
When I'm putting on a coat, put a scarf around my throat
Can you think what I'm guessin'? It's Leaving Time
First you take a good long look and
And then you think it through
And if you make a real smart guess
Maybe you'll know, yes!
I bet you'll know, yes!

Look, think, guess, go!
Pretty good chance you're gonna know
Look, think, guess, go!
Mighty good chance you'll
Look, think, guess, go!

Pretty good chance you're gonna know
Look, think, guess, go!
Mighty good chance you'll
Look, think, guess, go!
Mighty good chance you're gonna know
If you look, think, guess, go
There's a mighty good chance
There's a mighty good chance
you'll know!



Unit 7
Smart Guess

Social Thinking Concept Targeted

Smart Guess

Definitions

We make a **smart guess** when we take what we observe and combine that with what we know. The term smart guess means exactly the same thing as "educated guess" but is more kid-friendly and user-friendly with younger children.

Why Do We Teach This Concept?

The ability to make a smart guess is at the heart of acquiring critical thinking skills used for social and academic problem solving, accessing the academic curriculum, and relating to other people. Making a smart guess is a precursor to making predictions and inferences, skills that can be difficult for students who struggle with social learning. These individuals tend to be more comfortable with black and white choices and facts. Yet, the need to infer and predict as part of everyday life is constant, even in young children. Not only do they need to figure out what people mean by what they say, they are also expected to try and figure out what someone's facial expression or gesture means, and what will happen next, whether to a character in a novel or a peer in the classroom. By teaching students to make smart guesses we help them practice the process of "living in the gray area" where black and white facts or rule based formulas don't necessarily apply.

To make a smart guess we take what we observe (situational clues, people, body language, tone of voice, etc.) and add it to what we know (both general situational knowledge and specific personal knowledge) to formulate a reasonable guess, prediction or inference. In our teaching we contrast this with the concept of a "wacky guess." We make a wacky guess when we have no information (or clues) to help us figure out what the guess should be. If our wacky guess is wrong it's okay (and even expected) because we didn't have enough information to help us. Other times we might make a wacky guess because we're not using our social thinking to think with our eyes, listen to what is happening around us or use what we already know. For example, if a person walks into a friend's house, hears a dog barking, and then says, "Hey you got a new cat", that would be a wacky guess. That person is not combining observation (barking) with what he knows (an animal that barks is a dog) to make the guess (a new cat.)

So much of our social interactions are made up of making smart guesses! For example, even saying "hi" requires a series of smart guesses to figure out who you are talking to, when you should say "hi" (the first time you see a friend in a day), when you should not say "hi" (after seeing that same friend a few times) and how to make the greeting (verbal, a nod of the head,

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Unit 7 Structured Activities

1 Activity The Smart Guess Mystery Box

Purpose of the Activity and Background

The goal of this activity is to provide a structured way to teach students how to make a smart guess, using the Smart Guess Formula. While it may appear to be overly simplistic, appreciate the importance of giving children a means to be successful with the concept and starting them from an area of strength.

Before You Begin: Prepare Materials

Make your Smart Guess Mystery Box. This box will be part of several activities coming up and can be used to make both smart and wacky guesses.

Materials needed:

- A non-transparent box. A shoe box works well for this.
- Velcro
- A copy of the Smart Guess Formula (Handout 7.1)
- A crayon, a facial tissue and a block.

Smart Guess Formula

1. Cut out the four images that make up the Smart Guess Formula: Look, Listen, Think, Smart Guess. Laminate before cutting, if desired, for extra durability.
2. Cut four pieces of Velcro. Attach one side to each image and the other side to the lid of the box.

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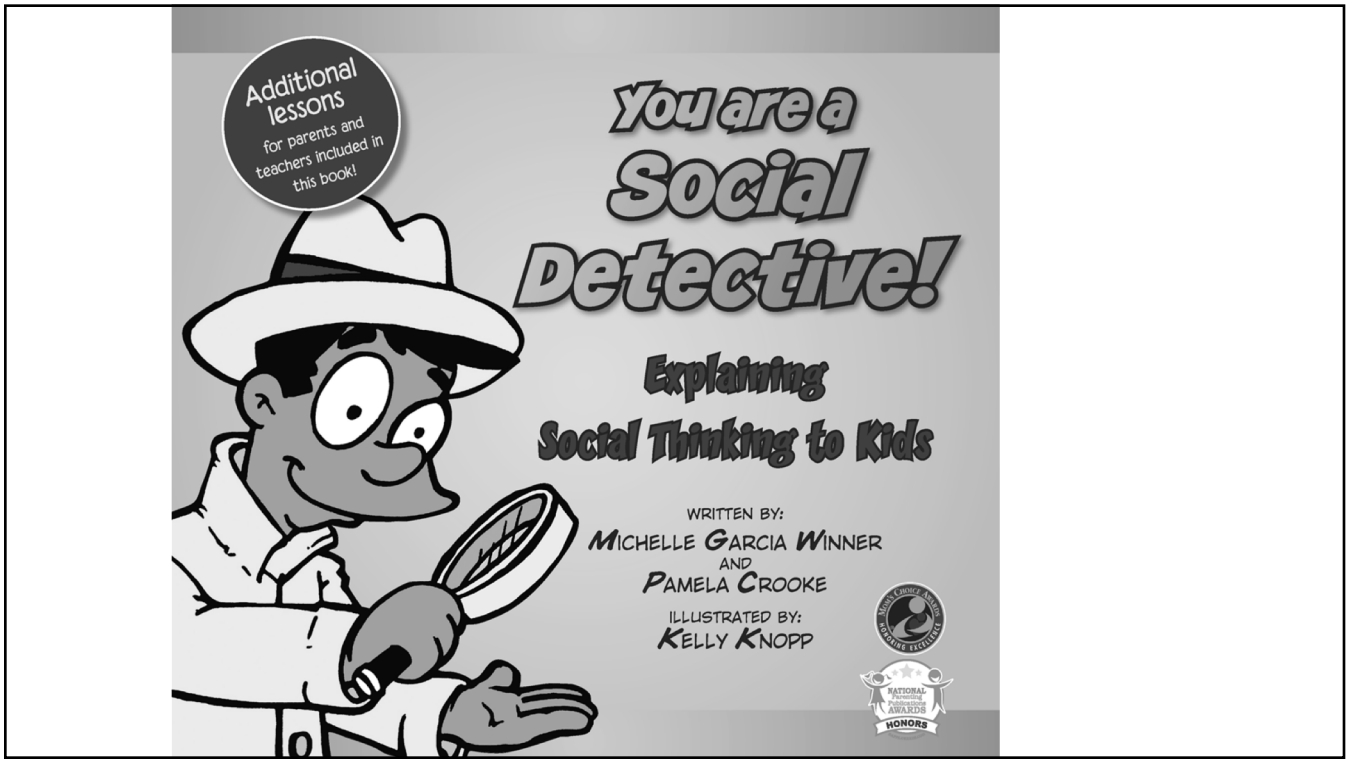
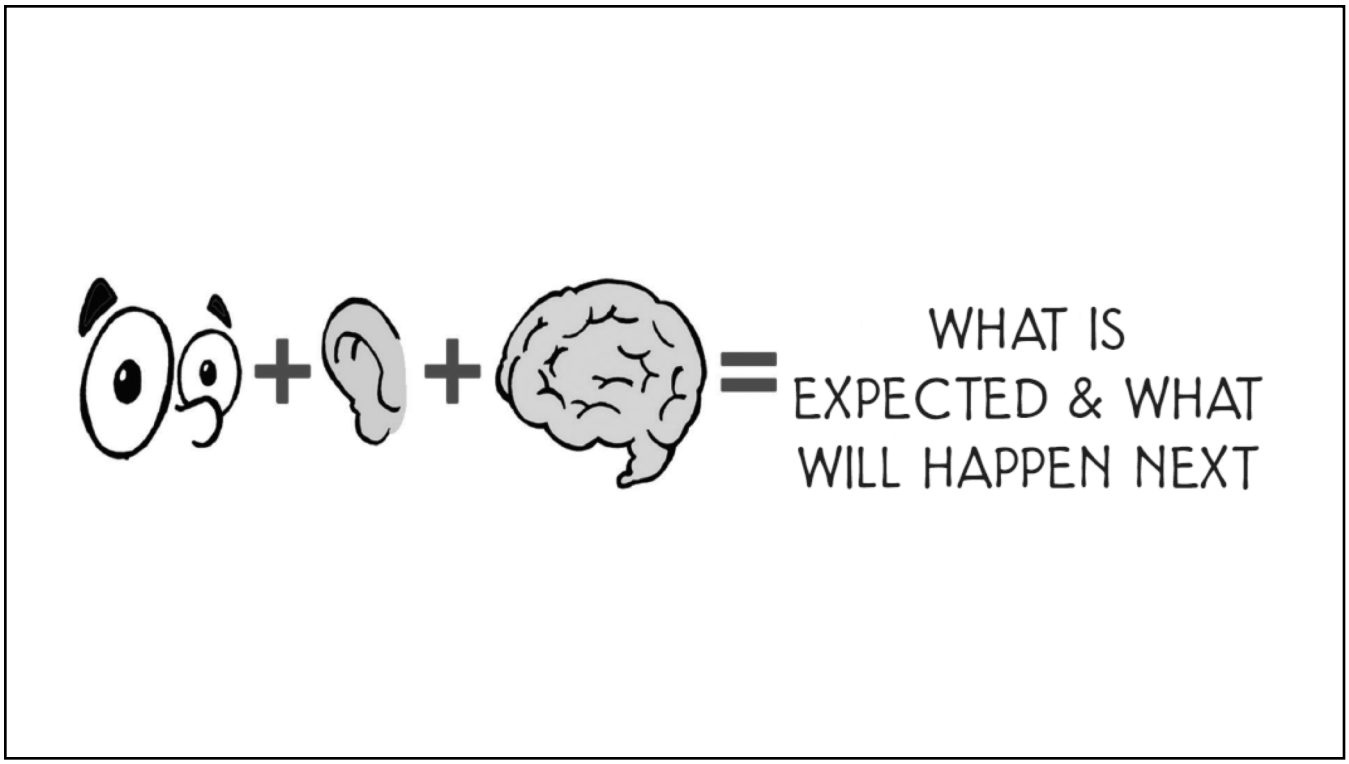
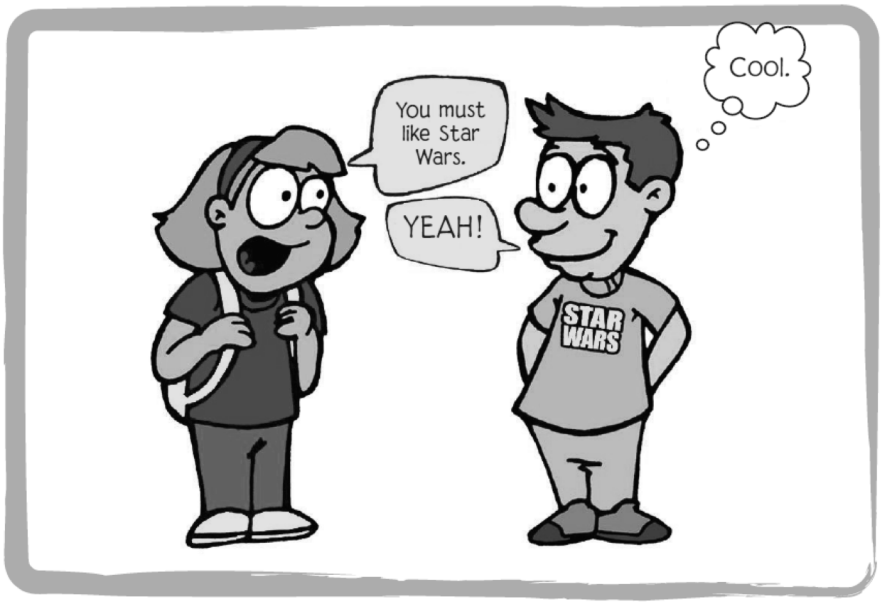
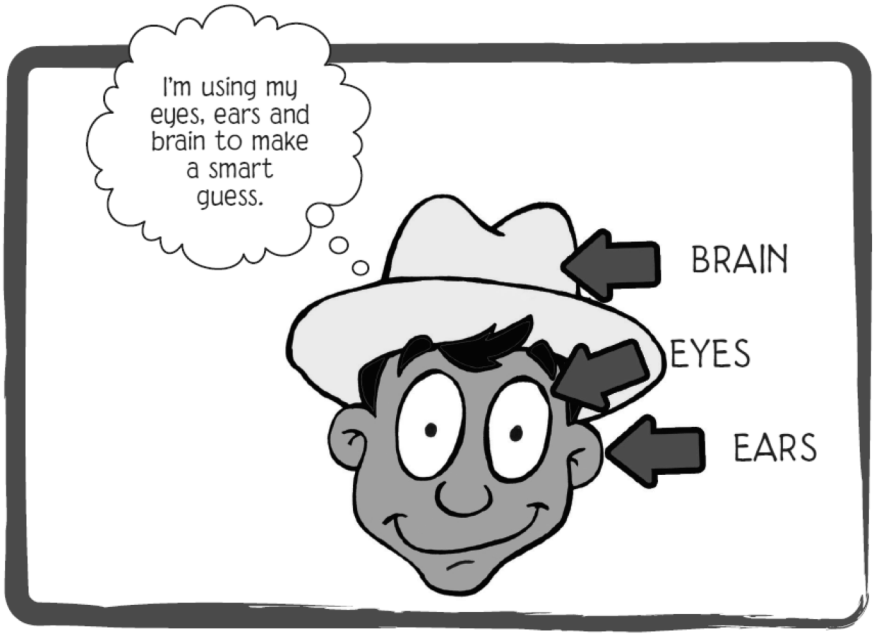




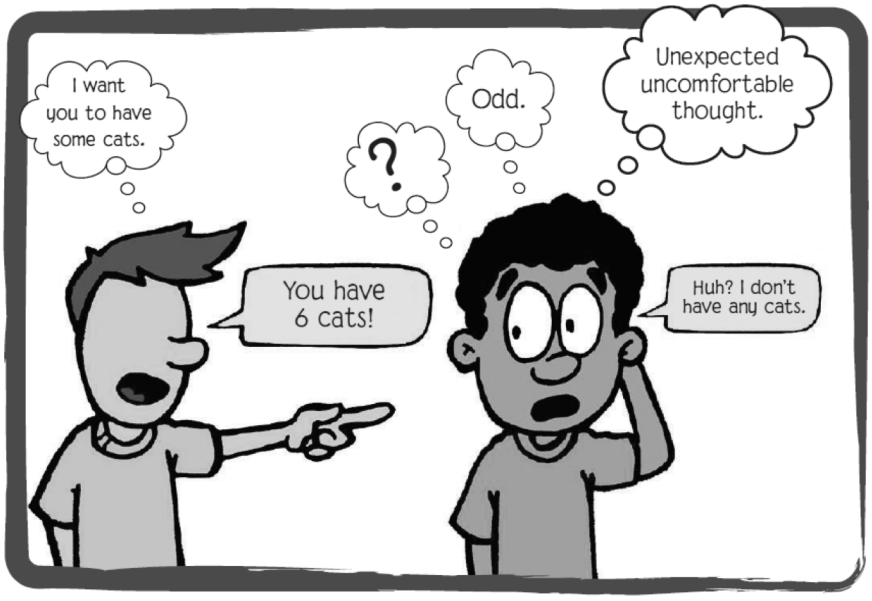


We make **smart guesses** all the time.
This happens in class, on the playground, and with our family.

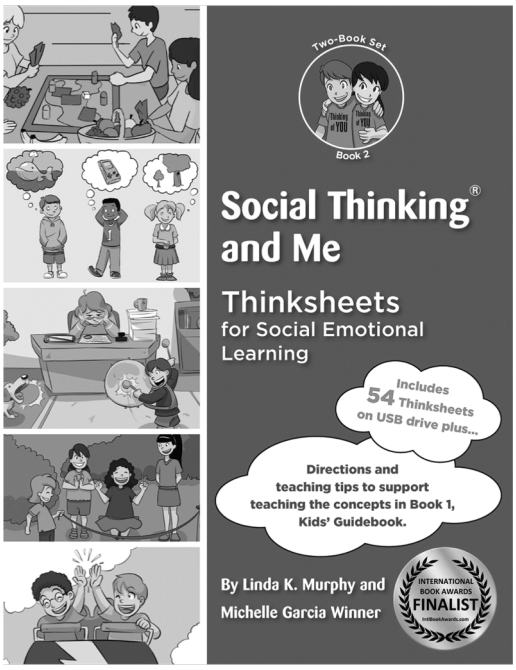


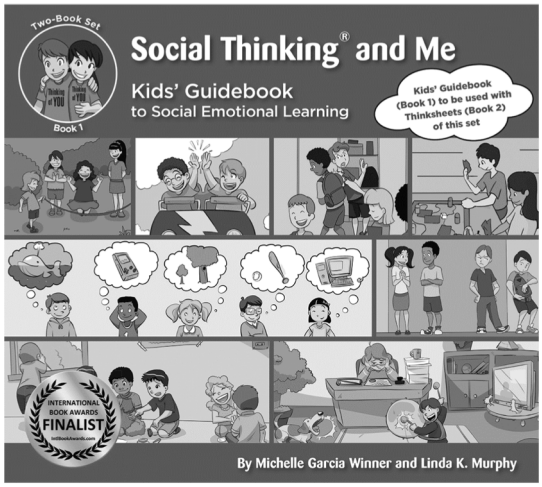
Social Detectives call this making a **smart guess!**

Others make **smart guesses** about us too!
They try to figure out how we feel or what we are thinking.
For example, if we only use our eyes to look at books, then others may make a **smart guess** that we are unfriendly because we are not paying attention to others around us.



An example of a **wacky guess** might be if you try to tell me something about me when you really don't know me.

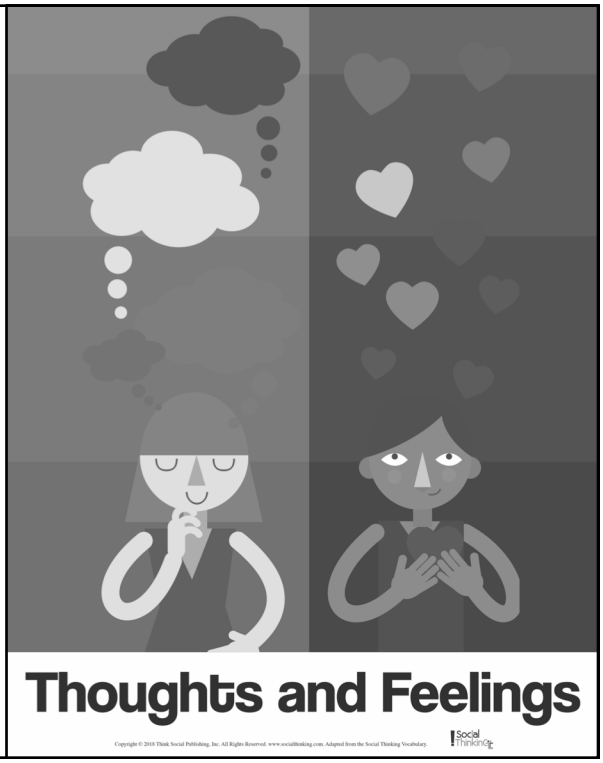




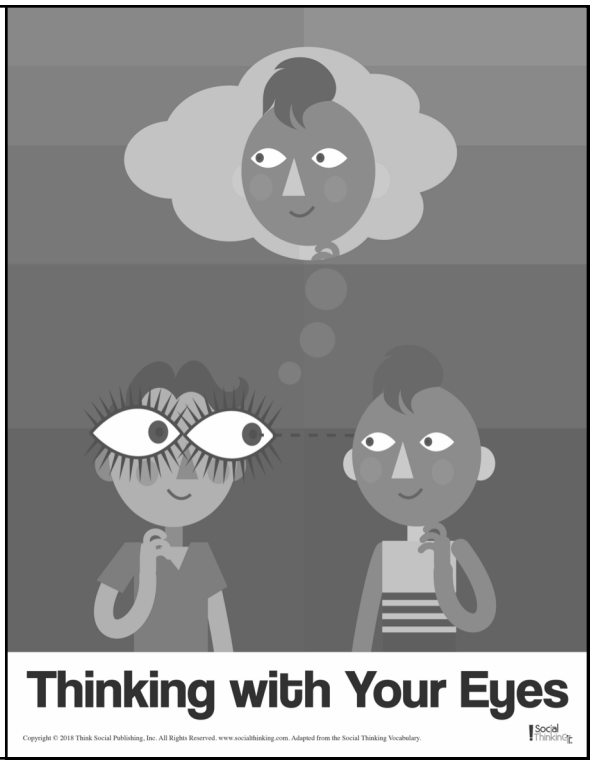
Making smart guesses is part of a constant, ongoing experience every day of our life.

Help students explore beyond the facts by talking about the *smart guesses* they are making.

1st webinar topic



2nd webinar topic

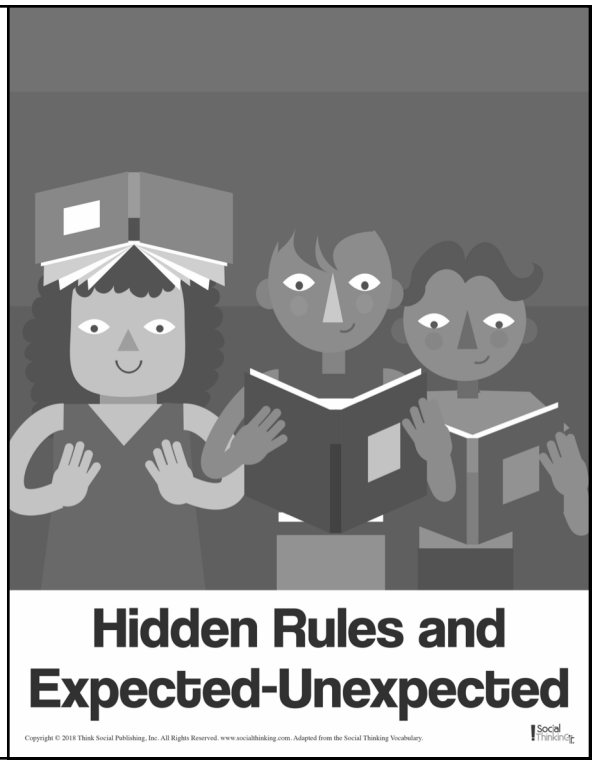


3rd webinar topic

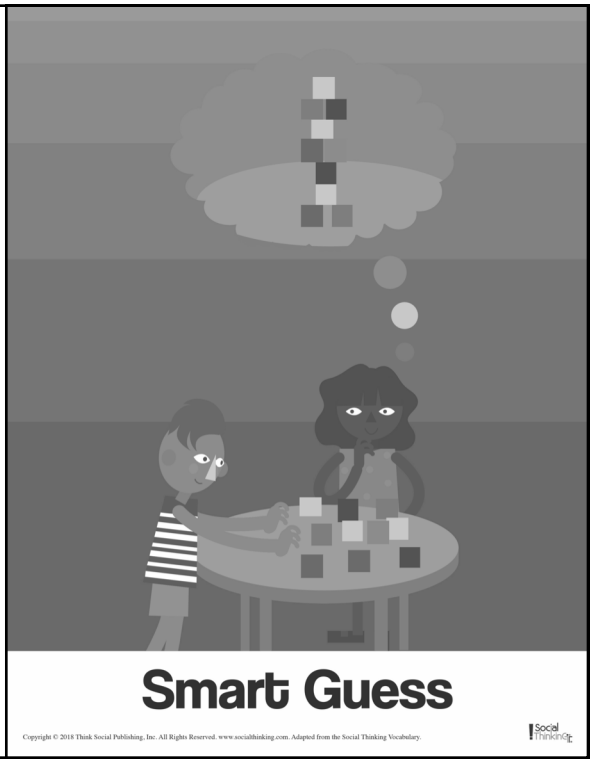
4th webinar topic

5th webinar topic

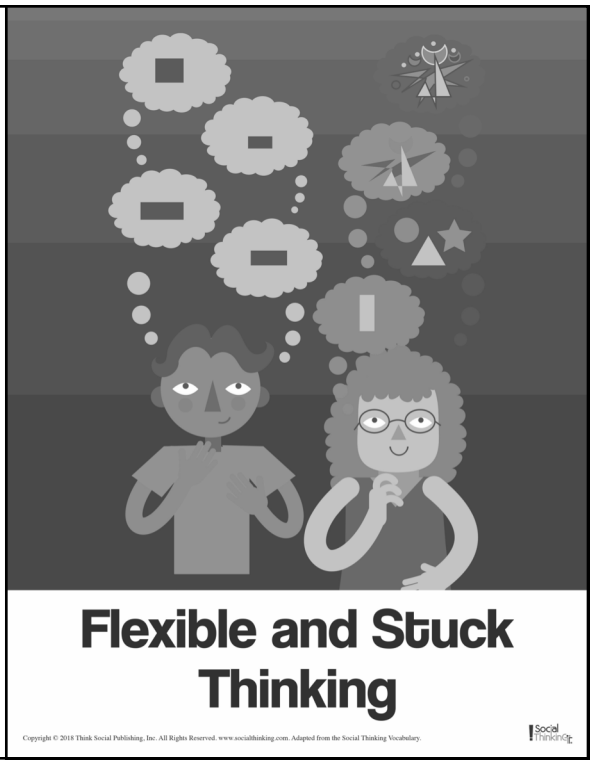
6th webinar topic



Current webinar topic:



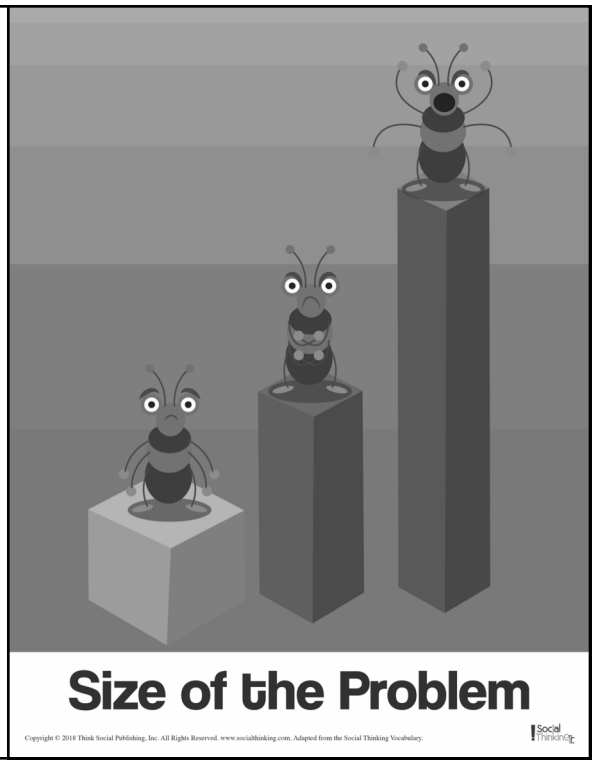
Next topic:



In the next webinar we will explore how *flexible thinking* works closely together with making *smart guesses*.

And how Superflex® can come to the rescue, and other strategies for older kids and adults.

9th webinar topic



10th webinar topic

We also explore through the Social Thinking Informal Dynamic Assessment how students make *smart guesses* when thinking with their eyes to engage in joint attention and when figuring out what is going on in a picture.

In our eLearning modules on Informal Dynamic Assessment tasks, I explain understanding the social world and making inferences is further complicated by the fact that some of our students don't perceive social information as efficiently as neurotypical individuals.

Learn more with eLearning

Modules that explore the concept *smart guess* further

Part 1: Social Thinking Informal Dynamic Assessment Tasks
Part 2: Social Thinking Informal Dynamic Assessment Tasks

Module that explores abstracting and inferencing

ILAUGH Model of Social Cognition Series, Module 3: Abstracting-Inferencing & Understanding Perspective

Register for the series' next webinar

Register now for the eighth webinar in the series and get strategies to help kids navigate *flexible and stuck thinking*.

www.socialthinking.com/flexible-thinking

Teaching Social Competencies—More Than Social Skills