

Social Thinking

EVIDENCE FOR USING A SOCIAL
COGNITIVE APPROACH TO ENHANCE
SOCIAL COMMUNICATION IN INDIVIDUALS
WITH ASPERGER SYNDROME & HIGH
FUNCTIONING AUTISM

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What are Social Skills?

- "Skills" often refers to the outward expression of a behavior.
 - Social skills are the social behaviors we use to relate to other people.
- "Set of skills people use to interact and communicate with one another."
 - Examples of social skills include: how to greet someone, turn-taking in conversation, skills involved in maintaining conversation, engaging in eye contact, to name a few.**

*http://www.socialskillstraining.org/social_skills.html

When do we learn these "skills?"



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By 4 years old...

- Children are engaged in group, cooperative play. These play skills are critical for the later development of conversation, reading comprehension, class relations, personal problem solving, etc...

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What is Social Thinking?

The ability to share space effectively across contexts, regardless of whether we are interacting with that person or not

(ex. Itch, salad bar)

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YOU CAN'T AVOID THE THOUGHT....

People are having thoughts

Whether we're interacting with them or not.....



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How is teaching Social Thinking different from teaching Social Skills?

- Teaching social thinking provides students with a deeper understanding of why we expect specific social skills.
- To teach only the "social skills" to these brighter students is to assume they understand why they should do it. Our students often don't understand the WHY.

Rules Change and we can't keep up!

- We should be teaching about how our actions cause thoughts and emotions and reactions in others
- We really can't just teach the skill
- How do you change your behavior?
- What happens when you learn the nuance of a social norm?
 - Do it?
 - Think then do?

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Social Thinking (in a nutshell)

- I have “thoughts” different than yours
- You can have “good/normal/ok” or “uncomfortable/weird” thoughts about me based on my behavior (i.e., what I say or do) - RELATED to Feelings
 - The reverse is also true
- If I am able to read your intentions and plan, then I will know how to respond.
- I can use my thoughts to imagine and wonder and connect to others’ thinking
- This all relates to social as well as Academics!

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Cognitive Behavioral Therapy

Cognitive behavior affects activity

Cognitive activity may be monitored and altered.

Desired behavior change may be effected through cognitive change

Dobson, K. & Dozois, D. (2001) Historical and philosophical bases of the cognitive-behavioral therapies. In K. Dobson (Ed.) Handbook of Cognitive Behavioral Therapies (pp.3-39). New York, NY: The Guilford Press.


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Social Thinking = Cognitive Behavioral Approach

- Lessons within social thinking teach individuals to think through a concept prior to the behavior (SKILL) being taught
 - Performance vs. thinking
- Thinking through the “why” behind using related social skills

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IT TAKES BOTH =



TEACHING
SOCIAL THINKING &
RELATED
SOCIAL SKILLS

--	--

MEASURING THE
EFFECTIVENESS OF
SOCIAL THINKING

	What's New?
--	-------------

Evidence-Based Practice

<p>"The conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individuals by integrating individual clinical expertise with the best available evidence from systematic research."</p>	
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Why Social Thinking-EBP

- **Based on Theory of Mind** (Baron-Cohen, Leslie and Frith, 1985)
 - Thinking about what others are thinking about you
- **Based on Executive Dysfunction** (McEvoy, Rogers, Pennington)
 - Difficulty with organization and flexibility
- **Based on Central Coherence Theory** (Frith, 1989)
 - Thinking in pieces without relating to a larger picture (conceptual learning deficit)

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Summary of JADD Study

- Based on social Thinking Vocabulary
 - Thoughts (good/uncomfortable/ok/weird)
 - Eyes/Brain/Body in the group
 - Thought filters
- Single Subject Multiple Baseline Design
- Social Skills Rating scale
 - Pre/post parents and subjects
- Double Interview Pre/Post
- One year follow-up for 4 of 6 subjects

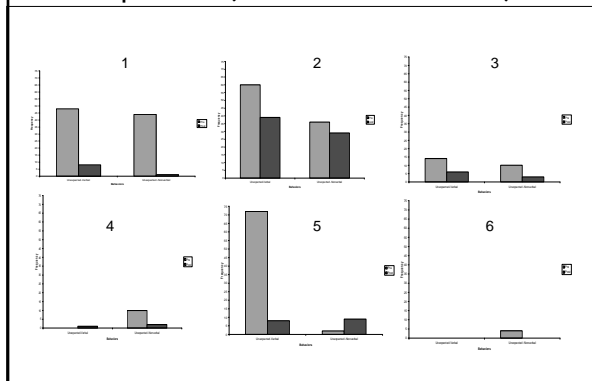
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Subjects

- 6 children with a current diagnosis of either High Functioning Autism (HFA) or Asperger Syndrome (AS)
- Aged 9 years to 11 years of age;
- Verbal IQ within the average range (85-115);
- 4) No History of social "skill" intervention

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Unexpected (verbal & nonverbal)



Results Cont.

- Statistically significant changes for the group from pre- post for *expected* verbal and non-verbal
($p \geq .03$)
 - Robust changes in *unexpected* nonverbal and verbal
($p \geq .15$, $p \geq .125$)
- NOTE: Not designed to be a pre/post study

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Limitations

- Short time in the scheme of social thinking treatment
- Few subjects
- Measured countable Behavior
 - (doing vs. thinking)

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Follow-up data: 1 year later

- 4 of 6 subjects - Data from the “generalization” setting
- All four subjects remained in weekly groups over the course of the year
- Follow-up data were collected in the same manner as in the original study

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EXPECTED Teach vs. Measure

Teach: Social Thinking Vocabulary

- Expected/Unexpected
- Good/weird thoughts
- Looking = Thinking
- WBL
- Social Files
- Filtering

Measure: Behavioral Output

- Comments/Questions to SUSTAIN an interaction
- Looking at speaker or object of discussion
- Comments/Questions to INITIATE a novel interaction

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UNEXPECTED: Teach vs. Measure

Teach: Social Thinking Vocabulary

- Expected/Unexpected
- Good/weird thoughts
- Looking = Thinking
- WBL
- Social Files
- Filtering

Measure: Behavioral Output

- Off-topic/negative/rude comments; perseverative topics; talking to self
- Distracting leg, arm, hand movements; sounds/noises; atypical object use

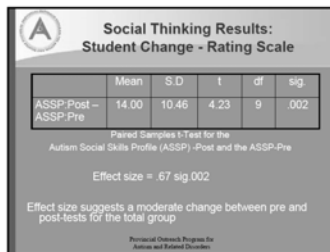
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Other research

- Hong Kong
 - Hong Kong Journal of Mental Health
 - Lee and colleagues (2009)
 - 4 students in the school setting
 - Social Thinking Curriculum in the schools
 - Data over the course of 1 year
 - Significant Changes over time
- Autism Speaks Social Thinking Grant
- 15 additional project around the world

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Other Research



Allison Adams (2008), British Columbia

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Spectrum of Theory of Mind

- Severely Impaired Perspective Taker (SIPT)
 - Very, very limited in their knowledge of other's perspective. Require highly structured environment to facilitate social interaction.
- Emerging Perspective Takers (EPT):
 - Understand people have different thoughts if they think long and hard about it.
- Impaired Interactive Perspective Taking (IIPT)
 - Quick at understanding that people have different thoughts but slow in determining how to figure them out.

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How SIPT may appear in school

- Language development often severely affected
- Not naturally attentive to others (but they like people).
- EXTREMELY WEAK INTERPRETIVE SYSTEMS
- EXTREMELY WEAK EXPRESSIVE SYSTEM
- Communication primarily for wants and needs or to discuss perseverations.
- Require very close assistance from adults (small class or 1:1 aide).
- Demonstrate talent in certain areas (puzzles, reading decoding).

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SIPT

- Nicky



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How Emerging Perspective Takers May appear at school

- Usually moderate to mild language problems, although may not have language issues.
- Very limited emotional vocabulary.
- Desire to engage in interaction and humor - but may "check out" if not highly interested.
- Requires therapy to facilitate social interaction for social purposes.
- Slow to process the different thoughts a person may have, especially when they are inferential. (curriculum comprehension issues)
- Issues understanding the motives of persons around them (e.g. Jerry and lunch, email scams)
- Weak attention span in a group.

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Early EPT

- Daniel



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Advanced EPT

- Block
Building
Aiden
- Lauren-
who
knows
what



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Impaired Interactive Perspective Taking (IIP)

- Solid technical language skills
- Awareness of others but not at the deeper intuitive analytical level.
- Able to discuss how others feel when they are outside of a spontaneous interaction (like in a discussion in therapy), but not able to track and respond to another's perspective while actively interacting.
- Generally they have the "invisible disability"

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IIPT - Erica



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Innovations in Thinking about Thinking

SOCIAL THINKING PERSPECTIVE TAKING RATING SCALE (STPT-RS)

What is the ST-PTRS

5 Point
Scale
(now 6)

Used to
rank levels
of the
social
mind

8 categories

- Understanding own and others' minds
- Emotional coping
- Peer Interactions
- Self Awareness
- Social Problem Solving
- Academic
- Bullying
- Special Skills

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What did the Providers do?

- Ranked level on the ST-PTRS
- Asked 1-2 other professionals to independently rank the same child
- Sent scales to San Jose

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Data from 08 Providers

Who participated?

-
- Autism Consultants
 - SLPs
 - Teachers
 - Special/Exceptional Ed. Teachers
 - Psychologists
 - Counselors
 - OT (1)
 - Assistant (1)
 - Parent (1)

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Data from 08 Providers

From?

-
- California
 - Oregon
 - Kansas
 - Illinois
 - Minnesota
 - Canada
 - Alberta
 - British Columbia
 - Quebec

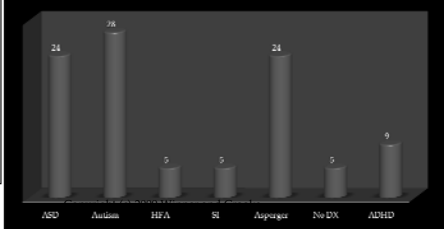
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Characteristics of Students

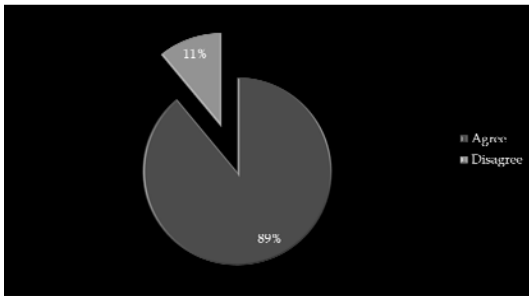
n = 49

Analysis
Subset
n= 21

- 6 to 17 years of age
- 90% male 10% female
- 95% receiving special education

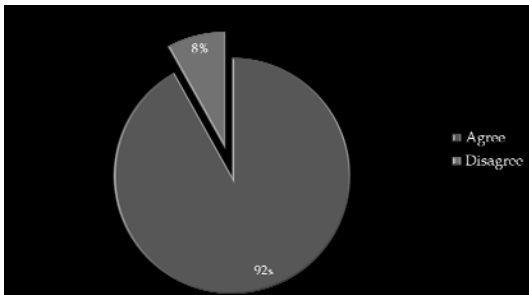


Exact Agreement between at least 2 Raters on ST-PTRS on Levels 2-5



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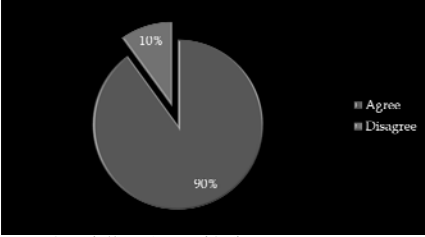
Exact Agreement between at least 2 raters on Categories A and B



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How about Levels 2-5 *and* Sub-categories A and B?


Agreement between at least 2 raters on Perspective Taking levels AND Categories A and B



■ Agree
■ Disagree

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How about 3+ raters on all levels and categories?



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Future Directions

Contact: pcrooke@socialthinking.com

More information related to Social Thinking:
www.socialthinking.com

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