


Using Peers, Play and Performance:  
SENSE Theatre®



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*Professor of Psychiatry & Psychology*

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**Transformative Approach**  
From Theatre to Therapy

- Prior to going to college and eventually becoming a psychologist, I was a professional actor and writer.
- Acting was transformative:
  - It enhanced my social communication
  - Increased my perspective taking of other people's experiences
  - Gained confidence in interacting with others

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## Translational Approach

From Research to Treatment

- Children with ASD often have difficulty socially interacting with peers especially as they get older (Corbett et al., 2010; 2012; Schupp et al., 2013)
  - Include peers in the intervention
  - Provide a supportive, fun environment to learn social skills
  - Create real world opportunities for practicing social skills

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## Translational Approach

- Benign social & nonsocial situations may be stressful e.g., (Corbett et al., 2008, 2010)
  - Provide a supportive learning environment to reduce stress
  - Performance-based direct skills training taught by having fun with others
  - Create real world opportunities for practice with different people, individually and as a group

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## Translational Approach

- Perception skills may be intact but the integration and expression may not
  - Develop skills through action, imitation, practice
  - Build in mechanisms for generalization – transfer skills to the real world using peer and video modeling at home (Corbett, 2003, Corbett & Abdullah, 2005)
  - Practice through role-play with peers (Corbett et al., 2011)

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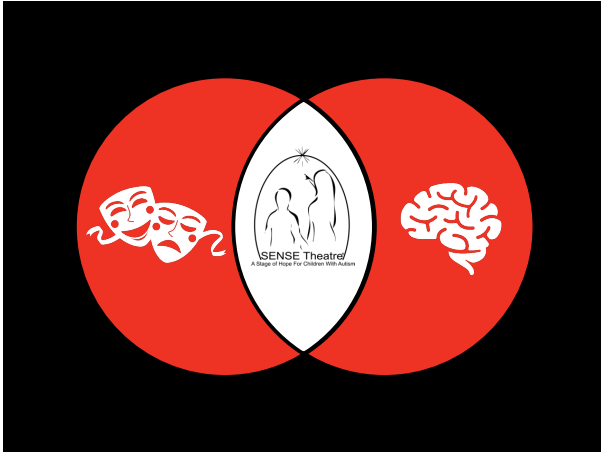
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**SENSE Theatre®** is a unique intervention research program designed to improve the social and emotional functioning of children, adolescents, and adults with autism and related neurodevelopmental disorders.

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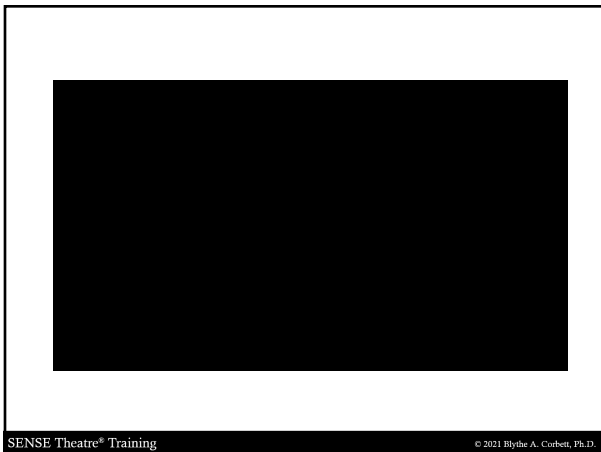
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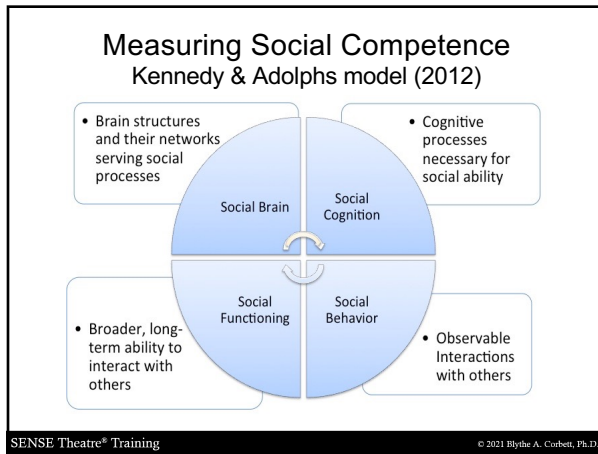
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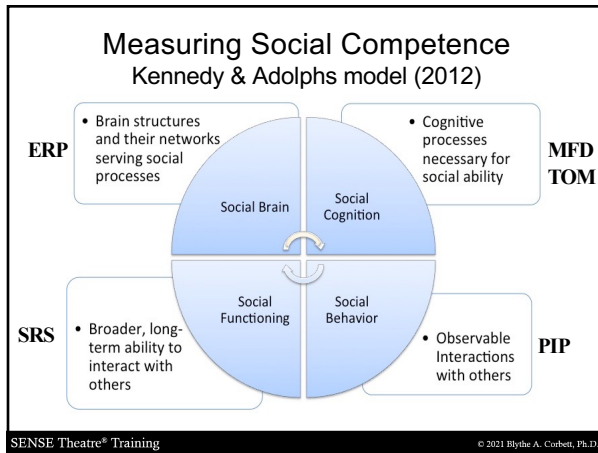
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J Autism Dev Disord  
DOI 10.1007/s10803-015-2600-9  
ORIGINAL PAPER

**Improvement in Social Competence Using a Randomized Trial of a Theatre Intervention for Children with Autism Spectrum Disorder**

Blythe A. Corbett<sup>1,2,3</sup>, Alexandra P. Key<sup>1,4</sup>, Lydella Qualls<sup>5</sup>, Stephanie Fecteau<sup>1,6</sup>,  
Cassandra Newsome<sup>1,7</sup>, Catherine Cole<sup>8</sup>, Paul Yoder<sup>1,2</sup>



- Randomized Control Trial
- Participants: N=30 youth
- Experimental (EXP) N=17
- Waitlist control (WLC) N=13
- Sessions: 10 Saturdays
- Children 8-14 years,
- Funding: NIMH R34

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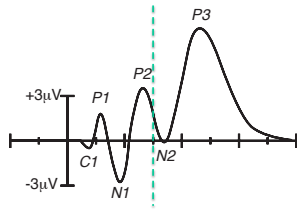
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## Social Brain: ERP waveform



- Noninvasive, portable
- Great temporal resolution
- Correlate with standard assessments

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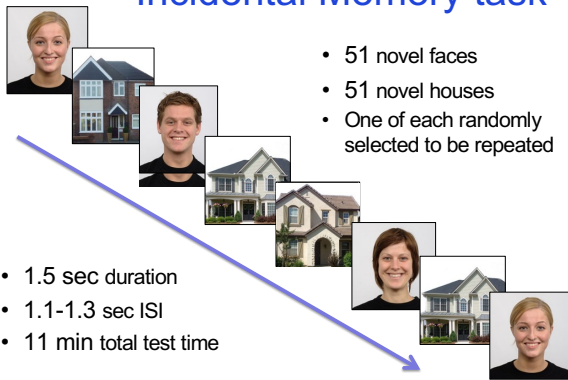
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## Incidental Memory task



- 1.5 sec duration
- 1.1-1.3 sec ISI
- 11 min total test time

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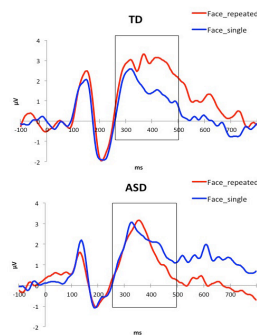
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## Incidental Face Memory TD vs. ASD



Key &amp; Corbett, 2014

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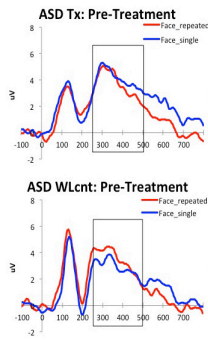
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## Social Brain: Incidental Face Memory



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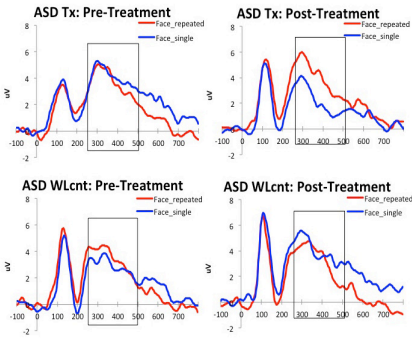
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## Social Brain: Incidental Face Memory



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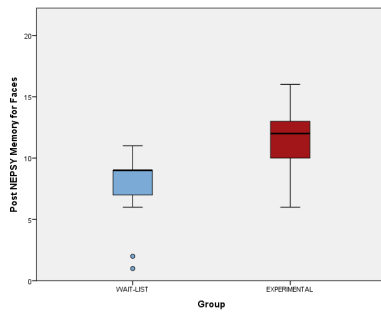
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## Social Cognition: Memory for Faces


 $F(2,28) = 6.01, p = 0.02$ 

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## Social Behavior: Peer Interaction Playground (PIP) Paradigm

- 1<sup>st</sup> exposure with two novel confederate TD children
- Post-treatment, 2<sup>nd</sup> exposure with a *familiar* and a novel TD
- Results show significant difference between EXP and WLC for group play  $F(2,28)$ , 4.35,  $p = 0.04$ .



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19

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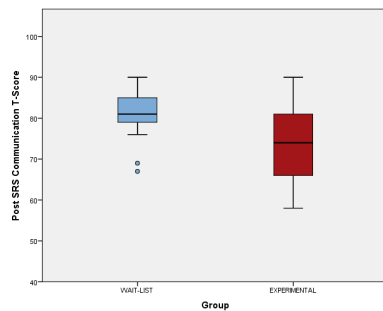
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## Social Functioning: SRS Social Communication

 $F(2,28) 5.37, p = 0.03$ 

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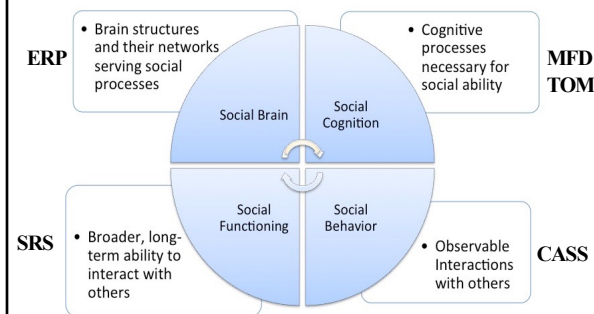
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## Multilevel, Multimodal Approach

Kennedy &amp; Adolphs model (2012)



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## Peers, Play, and Performance to Build Social Salience in Autistic Youth:

### A Multisite Randomized Clinical Trial (2023)

Blythe A. Corbett, Susan White, Matthew Lerner, Kristopher J. Preacher, Mark E. Klemencic, Grace Lee Simmons, Jennifer Pilkington, Philip Gable, Ayla Gioia, & Alexandra P. Key

**Treatment:** EXP: SENSE Theatre® compared to ACC: Tackling Teenage Training.

**Design:** Pretest, Posttest, Follow-up.

**Participants:** 290 randomized to EXP (N=144) or ACC (N=146). Final sample 207 autistic children 10-to-16 years.




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## SENSE Theatre® Summary

- The theatre-based intervention contributes to improvement in core areas of social ability for individuals with ASD.
- Improvement shows increased salience (*importance*) for social information (*faces*) even in the absence of direct instruction (*teaching social rules*).
- Highlights the importance of **peers, play** and **performance**.

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23

## SENSE Theatre® is based on Peers, Play and Performance

- **Peers:** peer-mediated intervention by highly trained typically developing peers (Odom & Strain, 1984). Peers are the target and interventionist.
- **Play:** Important for development, facilitates motivation to participate (Piaget & Inhelder, 1969), reciprocal interaction.
- **Performance:** Live and video modeling (Corbett, 2003), active engagement, and practice contributes to generalization of skills.

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### Peer Mediation in SENSE Theatre®

- Trained peers offer a supportive context in which to learn in community settings.
- Peers often benefit from providing support to others.



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### Social Support & Inclusion

- The peers and actors provide a foundation of social support and inclusion.
- Peers participate in training to learn about autism, the SENSE model and behavioral strategies.



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## Inclusion on and off the stage

- SENSE Theatre® embraces a model of inclusion on and off the stage.
- Several collaborators, (e.g., musicians, writers, actors) are on the spectrum or have family members with ASD.



28

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## Behavioral Techniques:

- Shaping (*gradual learning*)
- Intrinsic reinforcers (*praise*)
- Extinction (*planned ignoring*)
- Prompting (*guiding*)
- Peer modeling (*social examples*)



29

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## Application to the Classroom

- Identify peers that can offer a supportive context in which to learn in community settings.
- Remember, peers often benefit from providing support to others.
- Peers can learn basic behavioral techniques to support autistic learners.

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### Play and Development

- Play is critical for the development of social, cognitive, emotional and motor skills (Boucher, 1998; Pellegrini & Smith, 1998).
- It is essential to healthy brain development.



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### Theatre: A Safe, Supportive and Creative Space

- Theatre provides a safe, supportive and creative space to engage in reciprocal social interaction.
- Theatre allows us to behave in ways everyday life does not always allow.



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## Theatre Techniques:

Implemented by TD actors as “expert models”

- Theatre Games
- Improvisation
- Role-Playing
- Scripting
- Singing
- Choreography
- Character work
- Performing a musical play



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## Video Modeling

- Video modeling has yielded better results than live modeling in some people with **autism** (Charlop-Christy, Le, & Freeman, 2000; Haring, Kennedy, Adams and Pitts-Conway, 1987).
- Improve emotion perception (Corbett, 2003)
- Restrict field of view, facilitates repetitive learning, enhances generalization, children inherently motivated by medium (Corbett & Abdullah, 2005)

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## Observational Learning

Bandura, 1986

Four processes necessary for observational learning  
(learning by observing others)

- |               |               |
|---------------|---------------|
| 1. ATTENTION  | 2. RETENTION  |
| 3. PRODUCTION | 4. MOTIVATION |

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## Video Modeling Facilitates Observational Learning in autism by:



Corbett & Abdulla 2005

- Attention: selectively focusing autistic child's behavior on relevant stimuli
- Retention: maintain learned material through repetition

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## Video Modeling Facilitates Observational Learning by:



- Production: reproducing observed behavior through rehearsal and practice
- Motivation: rewarding all attempts and progress

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## Application in the Classroom

- Theatre provides a safe, supportive and creative space to engage in reciprocal social interaction.
- Theatre approaches (e.g., role-playing, singing, creating a character) teach social skills in a fun and engaging way.
- Video modeling compliments and enhances observational learning.

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## Performance

Acting relies on active engagement with at least one other person in reciprocal conversation and action.



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## Acting is Active

Acting with others is active not passive.

It requires a collaborative effort in which the telling of the story and performance of the songs is interdependent.



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## Rehearsal

Rehearsal is necessary for "automaticity" or to make skills part of our natural repertoire.



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## Improvisation

Practice in theatre gives the opportunity to experiment and try new things in a safe, supportive and inclusive environment.



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## The Show



Performance in front of an encouraging audience can be reinforcing and confidence-building allowing the skills to generalize to other settings.

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## Application in the Classroom

- Acting is performance-based learning to extend and enrich education-based lessons.
- Rehearsal and improvisation provide opportunity to experiment, try new things.
- Performance in front of fellow students in a supportive setting builds confidence.

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## Big Ideas

- Children with ASD can experience diverse challenges in social competence.
- Theatre has the potential to serve as a novel therapeutic approach to teach essential social skills.
- SENSE Theatre®, a peer-mediated, theatre-based intervention research program can enhance social competence in children, adolescents and adults with autism.
- SENSE Theatre® features key components which include peers, play and performance.
- Blending the innovation of art and rigor of science can make a meaningful impact as to how we interact with the social world.

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## VANDERBILT KENNEDY CENTER FOR RESEARCH ON HUMAN DEVELOPMENT

### SENSE Research

- Director: Blythe Corbett, Ph.D.
- Rachael Muscatello, Ph.D.
- Rachel Calvosa, B.S.
- Mark Klemencic, B.S.
- Jennifer Pilkington, M.S., CCC-SLP

### Collaborators

- Leah Lowe, Ph.D.
- Sasha Key, Ph.D.
- Tammy Vice
- Catherine Coke, B.A.\*
- Paul Yoder, Ph.D.

### Statistics

- Kris Preacher, Ph.D.
- Simon Vandekar, Ph.D.
- Trey McGonigle, M.S.
- Clayton Schupp, Ph.D.



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48

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We thank the children and families who participate in our research!

*Current SENSE Theatre® Funding*  
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*Vanderbilt Innovation Catalyst Award*

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 Vanderbilt Kennedy Center Hobbs Award  
 Donations to SENSE Theatre®

49

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## Thank you!



**SENSE Theatre®**  
 A Stage of Hope for Individuals with Autism

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## Questions?



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