

# Social Communication Impairment and Emotion Attribution

*Understanding & Intervening in Autism Spectrum Disorder*



**Judith I. Piggot M.B. Ch.B., M.Sc., Ph.D.**

*Consultant Child and Adolescent Psychiatrist  
UCLA Autism Evaluation Clinic  
Assistant Professor UCLA Department of Psychiatry*

*The Help Group Summit ~ September 2009*

---

---

---

---

---

---

---

---

## Understanding Social Communication Impairment and Emotion Attribution in ASD

### Deficits Associated with Emotion Attribution and Social Communication Impairment in ASD

- Gaze Abnormalities
- Affect Recognition
- Imitation
- Theory of Mind
  
- **Other Factors**
  - Memory
  - Arousal
  - Reward

---

---

---

---

---

---

---

---

## Attribution of Emotion

- From Facial Expressions
  - Static Facial Expressions
  - Dynamic Facial Expressions
  
- From Gestures
  - Biological Motion
  
- From Experiences
  - Music
  - Memories

---

---

---

---

---

---

---

---

**Emotion Attribution from Facial Expressions**



---

---

---

---

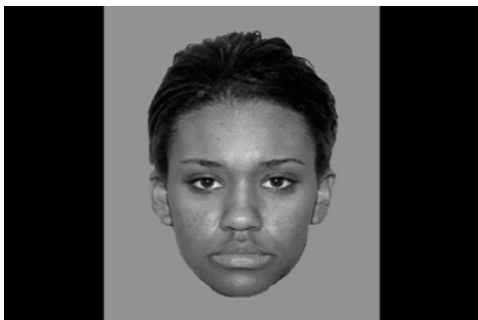
---

---

---

---

**Emotion Attribution from Facial Expressions**



---

---

---

---

---

---

---

---

**Emotion Attribution from Gestures**



---

---

---

---

---

---

---

---

## Emotion Attribution from Music

Happy Music

Sad Music



In collaboration with Istvan Molnar-Szakacs

---

---

---

---

---

---

---

---

## Social and Non-Social Memory

Does the word describe  
your Favorite Character?

Does the word  
describe  
YOU?

Does the word  
have the letter 'e'?

**Adventurous**

Do you remember the word?

---

---

---

---

---

---

---

---

## Intervening in Autism Spectrum Disorder

- Social Motivation Adaptive Reality Training (SMART) – Games Suite
- - address motivation
- - address social skills
- - improve attention to socially salient information
- - practice attributing emotion
- Improve TOM
- Equine Assisted Social Skills Training (EASST)
- - address motivation
- - address social skills
- - improve attention to socially salient information
- - practice attributing emotion
- Improve TOM

---

---

---

---

---

---

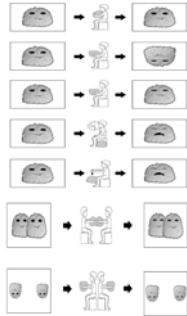
---

---

## Social Motivation Adaptive Reality Training - Games Suite



- THG-UCLA Autism Research Alliance will develop and test a SMART-Game in 6-12 year old verbal and non-verbal children
- promote attention, motivation, generalization and co-operative play in children with an ASD




---

---

---

---

---

---

---

---

---

---

## Equine Assisted Social Skills Training - EASST



- address motivation
- teach non-verbal social communication
- teach co-operative (group) social skills

---

---

---

---

---

---

---

---

---

---

**The Simons Simplex Collection**  
*innovation, courage, connections*



*leading an international investigation into the mysteries of AUTISM*

**11 Sites Across North America**





**2000 families, one mission**

---

---

---

---

---

---

---

---

---

---



**Participating families enjoy many benefits.**

Receive a free report of all assessments performed by our experts.

Stay informed of study-related scientific findings, available at [www.sfari.org](http://www.sfari.org).

Advance the global understanding of this complex condition.

Contribute to the discovery of new treatments.

---

---

---

---

---

---

---

---

## Acknowledgements

**Funding Support**

Autism Speaks Piggot (PI)  
Semel Junior Investigator Piggot (PI)  
Simons Simplex Collection Piggot (coPI)

**Lab Members**

Tiffany Wong Lab Manager  
Daniel Pham MRI Technician  
Samra Vazarian Post Doctoral Scholar

**Affiliated Academics**

Lawrie McKay Post Doctoral Scholar  
Rachel Brezis Graduate Student

**Research Assistants**

Min Vu Nguyen  
Sydney Brown

**Collaborators**

Elizabeth Laugeson  
Istvan Molnar-Szakacs  
Help Group



---

---

---

---

---

---

---

---