

# Improving Communication in Autism Spectrum Disorders (ASD)

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# Communication in ASD



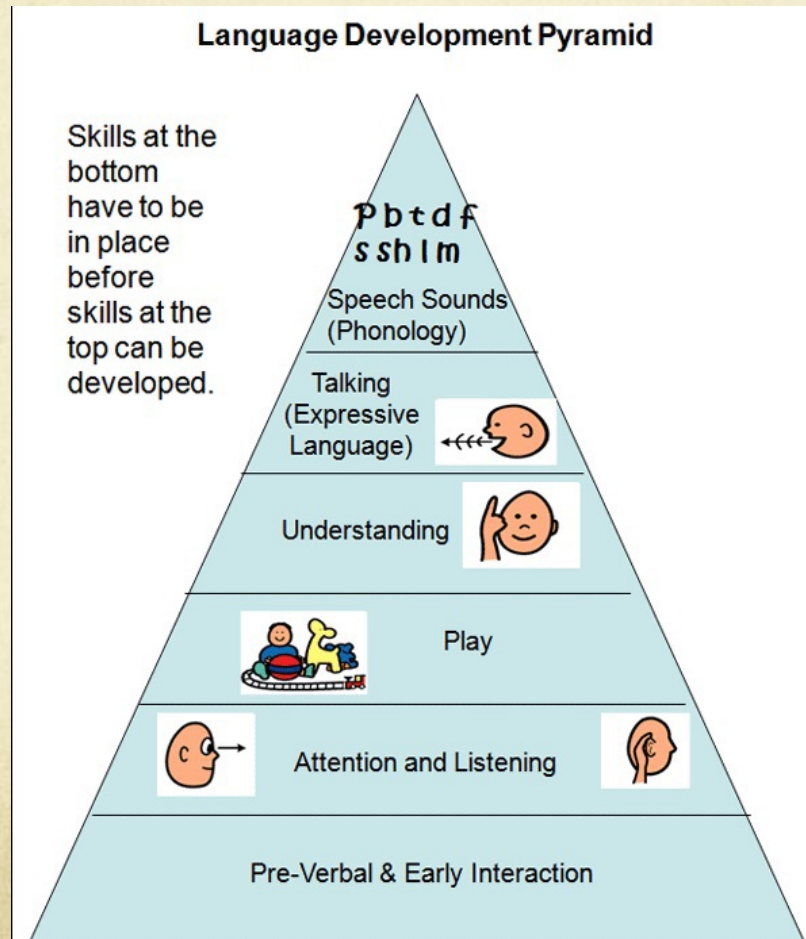


# We will cover...

- Typical language development
- Language presentation in ASD
- Language assessment
- Intervention approaches
- Intervention for non-verbal child with autism
- Intervention for higher functioning children
- General strategies to improve communication.

# Understanding normal language development

## ○ The building blocks for language development

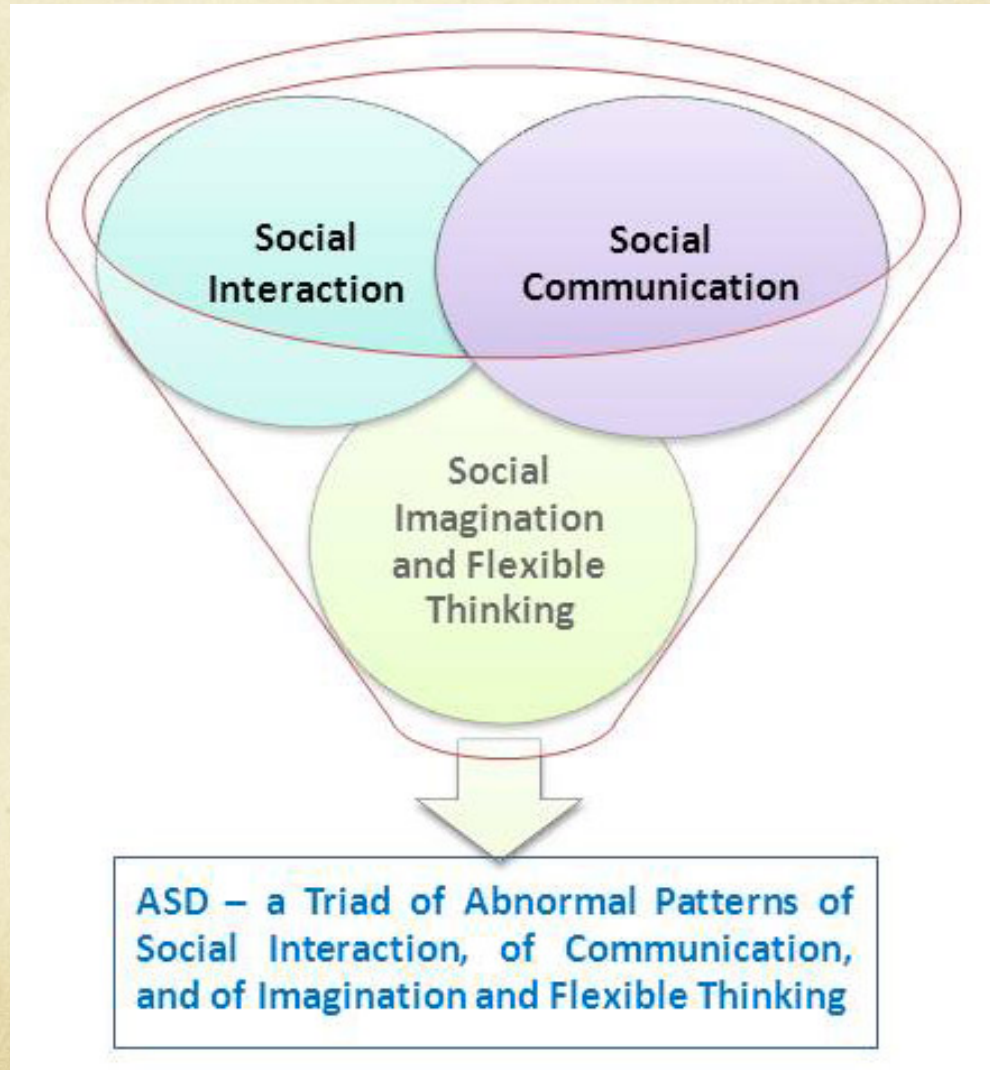


# How children develop language

	2 years old	3 years old	4 years old
Number of words using	20-50	About 300	Too many to count
Number of key words followed	1 or 2	3 or 4	4+
Number of words used in a sentence	Using a few simple words and a few 2 word phrases	3-7 word phrases	Lengthy and complex phrases
Types of words known	Nouns/verbs	In/on/under	Linking sentences 'and' 'because'
Examples	Man...ladder	Man up ladder	The man's climbing up the ladder



# Language Presentation in ASD



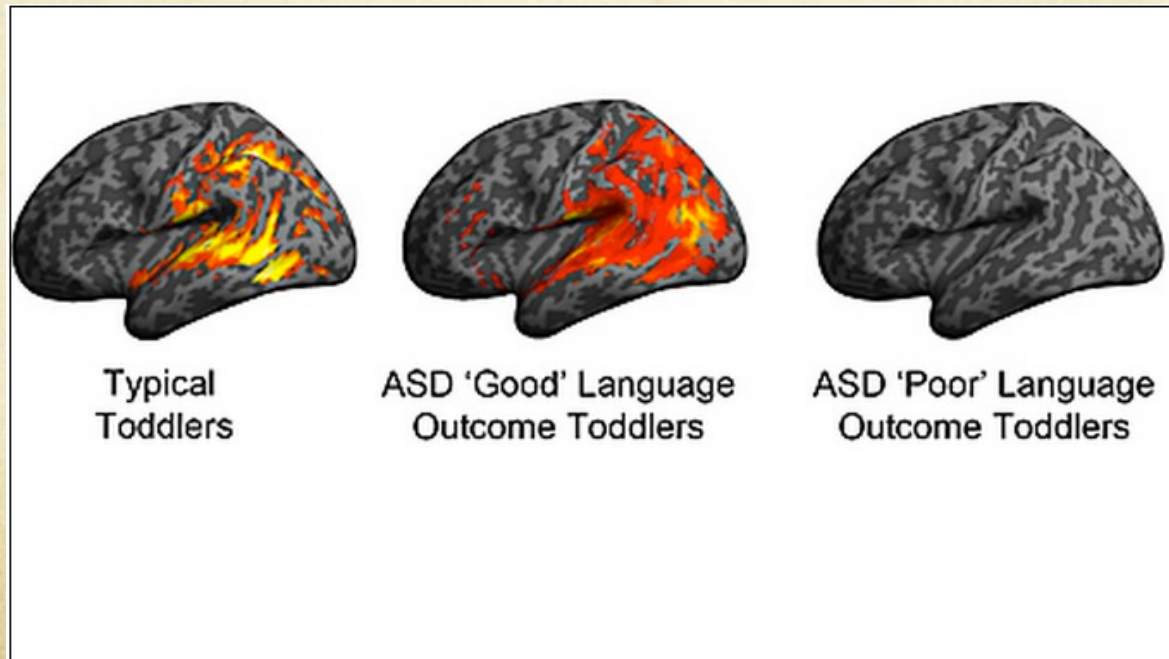
# Language Presentation in ASD

- Impairment in communication is one of the hallmarks of ASD.
- Language presentation in ASD is variable- ranging from children with Asperger's who show normal language milestones to the ten percent of individuals with ASD who are non-verbal.
- At least half of children with ASD have an intellectual disability ( $IQ < 70$ ).



# Language Presentation in ASD

- Recent MRI studies show which children with ASD will have good language outcomes (Lombardo et al. 2015)
- Implications of this study?





# Differential and shared communication characteristics of Autism and Asperger's

<b>Autism</b>	<b>Asperger's</b>
No period of typical development (half are mute)	Language emerges on time and appears typical
Eye referencing problems	No eye contact problems
Echolalia	No echolalia
Concrete vocabulary	Concrete vocabulary
Limited communicative functions	Range of communicative functions
Pedantic repetitive speech	Pedantic repetitive speech
Syntax errors	Normal syntax
Vocabulary deficits	Average or precocious vocabulary
Under-initiates	Over-initiates

# Characteristics...continued

Autism	Asperger's
Expression may exceed comprehension (only in high functioning)	Expression may exceed comprehension
Few requests for clarification	Few requests for clarification
Underdeveloped narration	Narration delayed but may become well developed.



# Language & Communication assessment

It is recommended that assessment takes account of:

- Joint attention
- Readiness to shift attention
- Social interaction
- Communicative strategies
- Play skills and interests
- Learning potential
- Preferred learning style
- Mental health



# Alerting (Language) signs

- No babbling by 12 months
- No gesturing (e.g. pointing, waving good-bye) by 12 months
- No single words by 16 months
- No spontaneous two-word phrases by 24 months (some echolalic phrases may be present)
- Significant loss of any language or social skills at any age



# Intervention

- Who can deliver intervention?
  - Speech and language therapist (SLT)
  - Trained parents with guidance from an SLT (they are just as effective as SLTs in developing a child's language Stahmer & Gist 2001 ).
- Three evidence-based intervention approaches:
  - Behavioural
  - Developmental pragmatic
  - Didactic and naturalistic



SPEECH  
LANGUAGE  
THERAPY

# Intervention for a nonverbal child with autism

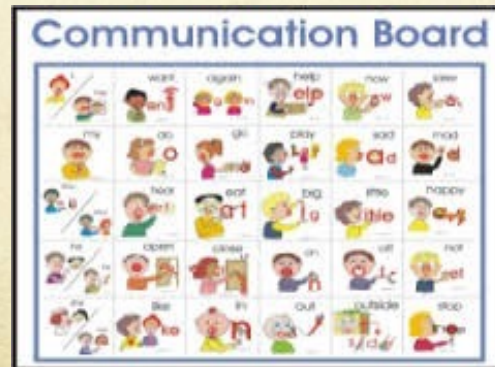
1. Parent Training: Teach good language modeling techniques to the parents

- Using shorter utterances
- Using sign language
- Self-Talk
- Parallel-Talk
- Labeling a child's body language, actions, or vocalizations using a single word



# Intervention for a nonverbal child with autism

- 2. Introduce AAC during therapy, try different methods (sign language, voice output, picture systems, etc.). See what s/he will use to communicate their biggest wants and needs.



# Intervention for a nonverbal child with autism

3. Try to get the child to imitate speech sounds for highly preferred objects. If s/he won't do that, try imitating non-speech sounds, oral motor movements, or other movements.

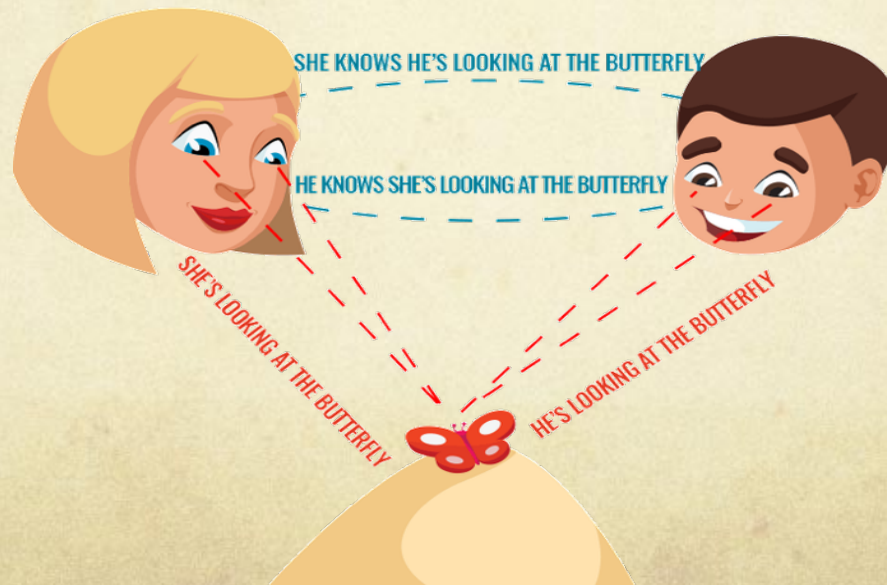




# Intervention for a nonverbal child with autism

## 4. Encourage joint attention:

Joint attention is sharing attention with others in social situation through eye gaze, pointing, or other non-verbal means



# Other Skills to Target

- Following basic instructions
- Basic turn-taking and requesting

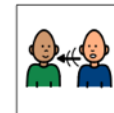
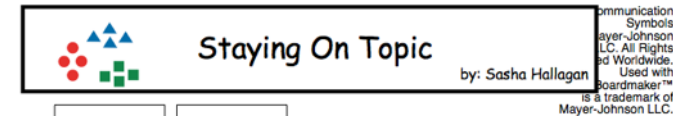




# Intervention for high functioning children

Higher functioning children will benefit from social skills intervention such as

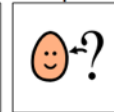
- Social script training
- Modeling and role play.
- Conversation skills training



I like talking to my friends. We can talk about all different things.



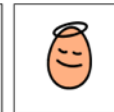
When we talk, it is respectful to talk about the same thing.



If we are talking about video games, I should ask questions about video games. I listen to my friends and ask them questions.



When we are done talking about something, I can bring up a new topic. I wait until we are done. It's rude to switch topics suddenly.



If I am respectful, my friends will want to talk to me.

# General strategies for improving language

- **Play with your child**, let the child lead the play, talk about what they're interested in rather than what you're interested in.
- **Keep language short:** matched to the child's level of understanding, e.g. 'sit' 'teddy gone.' This helps them understand and also provides them with something achievable to try and copy
- **Accompany your words with hand gestures to help them understand**
- **Make comments rather than asking questions.**



# General strategies for improving language

- **Emphasize key words:** this draws attention to the important words in a phrase. E.g. 'it's a big grey ELEPHANT,' 'He's hiding UNDER the cushion.'
- **Use choices:** this encourages them to use to use the words.  
E.g.
  - Child: (points at apple)
  - Adult: "do you want apple or banana (next to it)
  - Child: 'apple'
- **Repeat key words:** this provides them with lots of opportunity to hear a word in the right context.

# General strategies for improving language

- **Repeat back and expand:** this acknowledges what they say as well as giving a model of the correct adult grammar and speech sounds, e.g.
  - Child says: 'book'
  - Adult says: 'book...big book'
- **Don't force your child to repeat words, just model the words for them.**



# Early social communication development strategies

## Eye contact

**Blowing bubbles**- wait until your child looks to you or communicates in some way that he/she wants you to blow some more

**Turn taking** - try giving your child one toy and let him play with it for a while. Offer him another toy. Only let him have it when the other toy is returned. You can also pass/roll a ball to each other or take turns to build a tower.

# Early social communication development strategies

## Interaction:

Action songs and games are good for encouraging eye contact and interaction e.g. 'row the boat,' 'ring a roses,' 'round and round the garden.'



Questions???