### **Extending Language** - semantics, syntax, morphology

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#### Gayle Porter- Disclosure

- Senior Clinician, SLP CPEC Melbourne, Australia
- · Private Speech pathology practice
- Developer, Copyright & Trademark owner of PODD communication system resources
- Receives royalties from sales of PODD resources
- Honorariums for trainings on a range of topics



### **Extending Language**

- Semantics
  - Word meanings
  - Expand range of vocabulary used
- Syntax
  - Sentence structure
  - Developmental process for learning
  - Expand range and complexity of sentences
- Morphology
  - Making new words using prefixes and suffixesDevelopmental process for learning

  - Expand range of morphology markers used

### **Extending communication**

- Provide a linguistic map
  - Use their AAC system to map language onto their informal communication.
  - Show them how they can say something using language without demanding they say it.
- · Recast and expand to develop language
  - Recast repeat some of the individual's words and adds new information (maintains the basic meaning)
  - Expand -repeat what the individual says adding missing words to make it more grammatically correct

### Recasting and Expanding

- · Respond to the individual's message using AAC
  - How to communicate the same intent more specifically or intelligibly
  - May correct or add to the message
  - Done without interrupting flow of conversation
  - Expanding on their language use

"Communication is the engine that drives language" Martine Smith (2003)



- The purpose of language is to enable us to understand others and be understood
- The ability to use language is important in terms of how it enables us to meet our varied communication requirements

### Purpose of AAC

To enable the person to meet all of his/her varied **communication requirements** as

- intelligibly
- specifically
- efficiently
- · independently
- in as socially valued a manner as possible

To understand others and to be understood.

Porter, 1997

# A common pitfall in intervention occurs like this:

- a goal is set for the individual to learn X
- modeling using the individual's AAC system is identified as an important teaching-learning strategy for the individual to achieve X
- people in the environment use the individual's AAC to communicate genuine messages
- BUT the messages they model using the AAC system are full of A, B, and C, not X.

### **Extending language**

 Given the reality of more limited models of others using AAC modes it is vital that we target our modeling to support individual's new learning

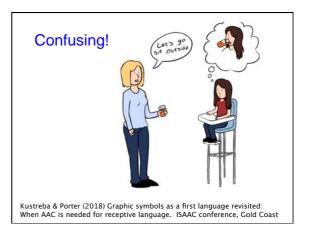
#### To do this

- Ensure all partners are aware of the current learning requirements
- Capitalise on natural opportunities to learn / practice specific, targeted skills
  - Targeted modelling, expanding, recasting
  - "Mini lessons"

### **Extending Semantics**

- Life experiences with other people using modes of communication the individual will be able to learn.
- The individual understands spoken language (learning AAC as a second language)
  - Surrounded by spoken language
  - Need sufficient models of aided language symbols combined with speech to map the meaning of the graphic symbol onto their existing meaning for that word.
- The individual requires AAC to support understanding (learning AAC as a second language)
  - Will need sufficient, varied models of the aided language symbols in natural contexts to work out meaning of the





### Sabrina, 2018

"This type of situation can lead to upset.

I remember how confusing it was when people would do things I didn't expect because I was relying on what I saw, not understanding what they said. "

Kustreba & Porter (2018) Graphic symbols as a first language revisited: When AAC is needed for receptive language. ISAAC conference, Gold Coast

### Sabrina, 2018

"How I learned and achieved the language of graphic symbols was a very long confusing and frustrating time.

Just because people pointed to a picture didn't mean I magically understood what they meant. I had to learn the meaning of the symbols."

Kustreba & Porter (2018) Graphic symbols as a first language revisited: When AAC is needed for receptive language. ISAAC conference, Gold Coast

### Sabrina, 2018

"This took a long time to do. It did not happen just because someone showed a picture to me once or twice but rather because people used the displays all the time modelling to me. It takes repetition and time to work out what the symbols and words mean."

Kustreba & Porter (2018) Graphic symbols as a first language revisited: When AAC is needed for receptive language. ISAAC conference, Gold Coast

## Learning Language What did I miss?



"People learn language from listening to other peoples conversation, watching TV or listening to the radio. I did not and that's why I have missed out on learning a lot of the language and its meaning".

People will try to explain to me what was talked about but they will simplify it because it takes extra time to type. So that means I will not get much chance to learn other words. "

Kustreba & Porter (2018) Graphic symbols as a first language revisited: When AAC is needed for receptive language. ISAAC conference, Gold Coast

### PODD

Recommendations for children who are learning graphic symbols as a first language

- Early introduction of an electronic device with graphic symbols in the message window (for partners to use to support understanding)
  - Can read whole sentence in message window
  - PODD page sets have a large message window page so individual can read whole message (all software except TD Snap)



### PODD

### Useful features in electronic page sets

- Being able to bring up a temporary message window (chat mode)
- PODD 15+ extra vocabulary for partners without significantly increasing



#### PODD

Supports for unfamiliar partners to talk to child with graphic symbol supports

- A partner keyboard with symbol prediction spaces added to page set
- Keyboard (external or on-screen) with symbolate function
- These work best if can limit the symbol options, select priority symbol sets in the software (so the individual's symbol choices are displayed first).

### **Extending Semantics strategies**

- · Need vocabulary available in aided form
  - Strategies to collect vocabulary
  - Teach individuals to ask for vocabulary to be added to system and/or add own words to their communication aids.
- Partners prioritize saying more unusual (new) vocabulary when using the AAC systems to interact
- Respond to the individual's messages with a recast, extending the vocabulary used

### What about doing word definitions?

- We learn the meaning of words through contextual use
- There are many words we understand and use that we would have difficulty defining.
- Rarely remember word definitions for words we don't use or learn out of context
- Define link to existing vocabulary knowledge – during ongoing interactions
- At later stages of language development, teach individuals how to look up the meanings of new vocabulary they hear/see used in daily life or written text.

### Extending Syntax & word morphology

- Partners prioritize using AAC system to produce sentence structures and word morphology the individual is learning
- Respond to the individual's messages expanding the sentence, adding missing words / word morphology markers to make it more grammatically correct
- Need vocabulary for the next stage of syntactical development in their AAC systems
- Vocabulary organisation supports efficient combining of words into sentences

# 



### Extending Syntax & word morphology

- Time to produce sentence using aided language without interruption
- Partners interaction supports autonomous production of own messages



# Pragmatics (social use of communication)

- Use of language, vocalisation, gesture, facial expression, eye-contact, body movement
- Appropriateness of communication
- Taking turns in interaction (discourse)
- · Initiating communication
- Selecting, introducing, maintaining, changing topics
- · Feedback to partner
- · Repairing communication breakdown
- Changing communication to suit different partners, situations & social roles
- · Use of communication for different purposes

### Pragmatics!!!!!!

- Same surface message different pragmatic function in discourse
- · Speech Act pairs
  - Ask question next turn is "answer"
  - Directed to "Tell me .." next turn is "compliance"
  - Statement range of pragmatic functions
  - Initiate range of pragmatic functions

# Conversational discourse changes language

Partner question:

What did you do on the weekend?

Appropriate answer:

Nothing much

Emphasising the number of words produced can lead to a pragmatically unusual answer:

On the weekend I did not do much.

### What is the purpose of syntax?

- To more intelligibly communicate your autonomous messages
- To more specifically communicate your autonomous messages in the words and style you choose
- To more independently communicate your messages (without the need for others to interpret)
- To produce more socially valued messages
- However, as each word takes time to produce for the aided language communicator – using full syntax compromises efficiency
  - Aided AAC users often reduce complexity of sentences produced during interactions, especially with familiar partners.

### Communication goal

- (Name) will produce 3-4 word sentences including the subject, verb and object.
- Can lead to inappropriate focus in intervention on number of words, rather than meeting communication requirements as
  - Intelligibly
  - Specifically
  - Efficiently
  - Independently
  - Socially valued

### Write goals to develop pragmatically appropriate, autonomous communication

- (Name) will produce 3-4 word sentences including the subject, verb and object.
- (Name) will relate information about past and future events providing sufficient information for the partner to understand their message without the need for repeated questioning/guessing or pre-existing knowledge of the information being

### Time to complete sentence without interruption



- "Helpful partners" may interrupt, guess at the message from key words
- Devices that speak every word
  - Partners hear a word and then jump in asking questions or interpreting or guessing at meaning (not allowing person to finish their sentence)
- Pauses between words using aided language
  - Partners hear enough to think they understand and
- · Partner-assisted scanning
  - ? Partner controls the continuation of scanning for more words

### PODD Partner-assisted scanning

- How does communicator manage the partner's continuation of scanning and completion of message?
- Skilled partners often informally ask communicators
  - "Do you need another word?"
  - "Do you have more to say?"
- Limitations with this "skilled partner" strategy
   Less knowledgeable partners do not immediately know what to do after a single word is selected.
   Skilled partners may be inconsistent in their checking for more words based on when they think they have heard an intelligible message.

#### PODD

#### Operational commands and conventions to control partner scanning

- Communicator needs strategies to control the partner's scanning
  - Continue scanning for more
  - Operational command to go to another page and keep scanning
  - End of message



### PODD

#### Operational commands and conventions to control partner scanning

- Need different operational buttons and conventions
  - After each WORD is said, scan operational column so individual can tell you what to do next
  - Whenever operational items are selected, follow the instruction and keep scanning on that page
    - GO TO PAGE NUMBER
    - TURN THE PAGE
    - GO BACK
    - GO TO LIST



### PODD

### Scanning operational commands



UH Oh, more to say, I think .. Don't like, scary (Another word on this page) annoying (categories) feelings hate (categories) It's always happening (That's all I have to say about that)

# Experience of communicator ? Understand the need syntax

- Familiar partners, who know everything about the individual's experiences
  - in the habit of interpreting key words
- "Helpful partners" take responsibility for understanding the message
  - 20 question guessing from key words
- Other partners do not understand the key words
  - Do not know enough about the individual to guess
- Individual may not have opportunities to learn why syntax is needed to support intelligibility or value communicating in own words

#### Expand / Recast (with options)

- Purpose of language is to communicate more specifically / intelligibly
- If intelligible, respond to individual's key word message with expansion in the same form
- If not intelligible (without guessing), Expand / recast with multiple options use the individual's aid/device to say
  - "I don't understand"
  - "That could mean (model 2-3 suggestions) or maybe something else"
  - "You need to tell me more"

### Model – sufficient information for partner understanding (syntax)



### Verbs help!

- Expanding and recasting with multiple options
  - Students clarify purpose of verbs to increase intelligibility of message for partners
  - Partners modeling process



How many different messages can you make with these words?

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# Whole word writing Need complete sentences for written text to be intelligible when read out of context

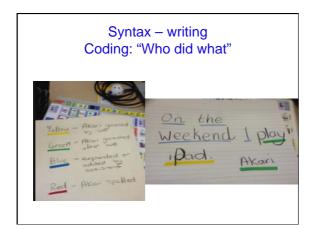
Communication book - page

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Letter to Lauren

0.02.10

Why I think you good, great, excellent, fantastic and cool is because I feel horrible, strange trying hard when not here with me.



### **Chapter 1**

One day I, Maree Kohnree, was sitting in my office when the One day I, Maree Kohnree, was sitting phone started ringing loudly. It was Robert, my other half. "Hey baby" Robert said. "Hi honey" I say. "When are you coming home?" he asked "20 minutes" I replied. "Okay" he said

"Why do you want to know?" I ask
"I am going to pick up the airplane tickets" Robert replied.
"Okay bye babe" I said to him.
I put down the phone and I clean up in my office and packed my
Toshiba laptop in my work bag, as I am walking out, the phone
started ringing and I was thinking 'I'll leave and not answer it' so I
did that.