Seminar Objectives

- Define and describe narrative discourse and the activities used to collect spontaneous and semi-spontaneous language samples.
- Distinguish within-sentence and between-sentence processes of discourse.
- Summarize specific measures for determining client abilities relative to within-sentence and between-sentence processes.
- Interpret results of measures and hypothesize about how to use results to measure treatment outcomes.

Why collect and analyze language samples?
What are we sampling?

- Discourse
  - Any language “beyond the boundaries of isolated sentences” ([Ulatowska & Olness, 2004])
  - “A set of utterances aimed at conveying a message among interlocutors… [it] may be the most elaborate activity” ([Ska et al., 2004])

Discourse Processes

- Production
  - Generating a continuous stream of linguistic elements

- Comprehension
  - Constructing a mental representation from the input + one’s own goals & knowledge

Successful Discourse

- Sufficient amount of information is provided by the message sender
- Information is truthful
- Appropriate and relevant vocabulary are used
- Information is shared in a concise manner to prevent ambivalence & obscurity

(Grice, 1975)
Conversation vs. Narrative

- Often embedded in conversation
- Commonly elicited from adults with communication disorders

Semi-Spontaneous Discourse Tasks

- Narrative
  - Event casts
  - Narratives that explain a scene of activities
  - Recounts
  - Verbal reiterations of an event
  - Stories
  - Fictionalized, highly structured forms
- Procedural descriptions
  - An account of the steps involved in an activity or routine
Eliciting a Narrative: Eventcast

- Take a minute to look at this picture. When you are ready, tell me a story with a beginning, a middle and an end.
- If the participant stops after 15 seconds the examiner will prompt: Is there anything else you can tell me?
- Audio and/or video record
- Word for word transcription

Stimuli

- Demonstration
  - Cookie Theft Picture (BDAE)

Nicholas, L. E., & Brookshire, R. H. (1993)

CLAN Transcription

@G: Cat
*SUB: well apparently a cat has gotten up the tree uh a little girl's cat.
*SUB: she's gone up there with her tricycle to try to figure out a way to get it down.
*SUB: the family dog is also barking at the at the base of the tree.
*SUB: the father has come with a ladder.
*SUB: but the ladder has fallen.
*SUB: and now uh hopefully he had a cell phone.
*SUB: so he was able to call for help.
*SUB: and uh the firemen are just now arriving with the ladder to get both the father and the cat down uh for the little girl.

@End
Eliciting a Narrative: Recounts

- Tell me what you did on your last vacation?
- Tell me what you did last Christmas, Thanksgiving etc.
- Audio and/or video record
- Word for word transcription


@G: Vacation
*SUB: August of two-thousand nine my husband was uh participating in the national senior Olympics & he was uh which was to be at Stanford University in uh Palo Alto California.
*SUB: and uh I was delighted to get to go with him.
*SUB: and uh we spent four days in uh Palo Alto and the surrounding area and did some sight-seeing in Monterey and uh San Francisco and uh Sonoma wine valley country and uh enjoyed the flight to and from.
*SUB: I didn’t care for the heat at uh Palo Alto.
*SUB: my husband ran a ten K [ kilometer] uh mile in ninety-eight degree heat.
*SUB: and I got some sun.
*SUB: he came in third in his age group.
*SUB: and so that was a wonderful vacation.


Eliciting a Narrative: Story Telling

- These are children’s books without words- so that a person can make up their own story.
- First, look through the book and get an idea of the story.
- When you are ready, tell me the story that goes with the pictures.
- Audio and/or video record
- Word for word transcription

Stimuli

Eliciting a Procedural Description

- Explaining the steps for an activity or routine
- Simple and familiar
  - How to make a PB&J sandwich
- Complex and unfamiliar
  - How to SCUBA dive

I am going to tell you how to make a pot of coffee. Examiner proceeds with script.

Now it is your turn. Tell me how to plant a garden.
Situation: Procedural Flower
@G: Flower
*SUB: If you’re planting flowers in my garden, there’s problems because we have soil that’s very very clay.
*SUB: so the first thing I have to do is amend the soil by putting in some things like a peat moss or some other things to make the soil better.
*SUB: actually I have some soil brought in.
*SUB: and I keep it in the back of the yard.
*SUB: so I go out and prepare the bed by putting by amending the soil um and putting some fertilizer in.
*SUB: and then take in the case let’s just take bulbs because I plant alot of bulbs.
*SUB: you put a bulb in the ground.
*SUB: try to make it just the right depth.
*SUB: cover it up.
*SUB: water it.
*SUB: and if it’s in the winter time I might actually put a little mulch over the top of it.
*SUB: and then it’s done.

Discourse Analyses

Types of Analyses
- Within sentence analyses procedures
  - Content
  - Syntactic complexity
- Between sentence analyses procedures
  - Coherence
  - Task-specific
  - Comprehension
Within Sentence Analyses

- Content
  - Informativeness
  - Efficiency
  - Word Diversity
  - Word errors
  - Syntactic Complexity

Informativeness

- Words that are accurate, relevant and informative to the stimulus
  - Correct Information Units (Nicholas & Brookshire, 1993)
  - Content Units (Yorkston & Beukelman, 1980)

PWA: the the car is the the gentleman is getting directions and he and the gentleman is getting asking the the ah.
PWA: the gentleman is asking for directions and the directions are a an the directions are funny and the people are the people are asking for the directions.
SLP: Is that it?
PWA: mm hmm.
SLP: okay.
Efficiency

- Ability to convey information in a timely manner
  - CIUs per minute (Nicholas & Brookshire, 1993)
  - CU per minute (Yorkston & Beukelman, 1980)
  - Percent IUs per minute (Doyle et al., 2001, 2002)

Lexical Diversity

- Variability in selection of words used
  - Type token ratio
  - Number of different words
  - \( D \) – mathematical algorithm applied to TTR
  - Vocab utility in CLAN (MacWhinney, 2000)

The CHILDES Database

TTR by hand

Errors

- Manifests in different behaviors
  - Lexical errors – neologisms, stereotypic utterances, paraphasias, indefinite words
  - Lexical recovery problems – self-corrections, circumlocutions, repetitions

Nicholas & Brookshire (1993)

*SUB: uh there are a couple. *SUB: driving in a convertible down the road. *SUB: and uh they have a map. *SUB: and they're you know asking a farmer who's beside the road whose uh getting ready to make a hole to plant a tree. *SUB: and they're asking him directions to somewhere. *SUB: and he's pointing and telling them uh where they need to go. *SUB: and so he goes back to planting his bush his tree. *SUB: and they go on down the road. *SUB: and it shows that he has the hole dug. *SUB: so they've been gone for quite a while. *SUB: and um then you see a couple coming from the direction. *SUB: oh I don't know how to explain that. *SUB: last weekend my daughter came over to my house. *SUB: and we cleaned out closets and filled up all the garbage cans all of the recycle barrels and cleaned out a whole lotta stuff. *SUB: now we gonna have to have a yard sale to get rid of the rest of the stuff and get everything in place. *SUB: and it's really nice to have an empty closet. 


(Blue= IIUs, Red= Indefinite Words, Green= Paraphasias)

Recounts Last Weekend
*SUB: last weekend my daughter came over to my house. *SUB: and we cleaned out closets. *SUB: we filled up all the garbage cans all of the recycle barrels and cleaned out a whole lotta stuff. *SUB: now we gonna have to have a yard sale to get rid of the rest of the stuff and get everything in place. *SUB: and it's really nice to have an empty closet.


Syntactic Complexity

- Calculate a complexity index by counting independent and dependent clauses
- Add IC and DC then divide by IC = complexity index

Between Sentence Analyses

- Cohesion
  - Complete & incomplete ties
- Coherence
  - Global & local
- Task-specific measures
  - Steps, propositions, schemas, themes, gists

Cohesion

- “…interpretation of some element in the discourse is dependent on that of another. The one presupposes the other…the presupposing and the presupposed are integrated into a text.” (Halliday & Hasan, 1976)
  - The boy bought milk at the store. He needed it for breakfast.
  - He got it from a friend. It helped him with homework.

Coherence

- How the discourse sample “hangs” together
  - Global coherence
    - How utterances relate to the overall topic
  - Local coherence
    - How utterances within the discourse sample maintain meaning
Task-specific measures: Narratives

- **Eventcasts**
  - Accuracy & completeness of main concepts (Nicholas & Brookshire, 1995)
  - Proportion of main events (Capilouto & Wright, 2005)

- **Procedures**
  - Accuracy, completeness, order

- **Stories**
  - Proportion of story propositions

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Main Event Analysis: Development and Scoring

- **Main event**
  - Importance to the story as a whole and
  - Independence from the other events in the story

- **How were they developed?**
  - Independent review of each stimulus
  - Generation of main events for each stimulus
  - Comparison of main event lists
  - Final set of main events compiled

  Capilouto, Wright, & Wagovich, 2005;
  Wright, Capilouto, Wagovich, Cranfill, & Davis, 2005

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**Main Events: Cat in the Tree**

ME 1: The dog chased the cat up in the tree (ran up the tree to get away from the dog).

ME 2: The girl is trying to get (to coax) the cat down (wants her cat to come down) (wants to get her cat out) from the tree.

ME 3: The man (father) tried to get (rescue) the cat, but his ladder fell, and now he is stuck.

ME 4: The firemen (firefighters) (fire department) arrived to rescue the man and cat (come and get the man and cat out of the tree).

Nicholas & Brookshire (1995)

Capilouto et al., 2005; Wright et al., 2005

Task-specific measures: Procedures

- Essential Steps
  - “Steps which must be understood by the listener in order to know what basic actions are required to do the task” (Ulatowska et al., 1983)
  - Determine a priori

- Optional Steps
  - “Clarify, add, or give more detail beyond the essential steps” (Ulatowska et al., 1983)

Comprehension

- Comprehending the task stimulus?
  - Sender
  - Receiver
  - Comprehend
  - Produce

Nicholas & Brookshire (1993)

PWA: Well this man is and her.
PWA: To each other.
PWA: They’re both mad.
PWA: And she gets tired and she walks out of the house.
PWA: And then he goes back in and he’s head does not cause she is gone.
PWA: And he comes back and looks, here she comes back.
PWA: And she prays with herself cause he comes back, he’s stomping and he sees her.
PWA: She is so pretty and she goes and she comes back.
1. Why did the woman leave?
   a. She was going shopping
   b. She was having an argument
   c. She was going to work
   d. She was going on a trip

2. How long did the woman plan to be gone?
   a. A few minutes
   b. A couple of hours
   c. Until afternoon
   d. Overnight

3. Why did the woman come back?
   a. She wanted to finish the fight
   b. She forgot her keys
   c. She was in an accident
   d. She was finished shopping

4. Why did the man hug the woman?
   a. Because she was upset
   b. Because he was lonely
   c. Because he was leaving
   d. Because she was sick

In Summary
- Consider what information each analysis provides you
- Look at different aspects of discourse to get the "big picture"
  - Within-sentence
  - Between-sentence
  - Comprehension

What makes a good narrative?
- The social validity component
- Choosing targets for treatment
  - Coherence and clarity (Olness et al., 2005)
  - Informativeness measures (Christensen et al., 2009; Doyle et al., 1996)
  - Story propositions (Christensen et al., 2009)
References


Thank You!

Questions??