

① Talk interaction -

• Spontaneous speech people use as they engage in p^{rt} activity

Week 6 Part-2

② Conversational fillers - words like uh or um

③ Pragmatics - various ways context contributes to meaning of discourse.

DISCOURSE

- This is the technical term we use to refer to speech structured at the highest level.

- Discourse

Conversation

(We shift between periods of turn taking as listener and speaker)

Narrative

(Periods when one speaker dominates the conversation)

Conversation

- Discourse is a set of sentences that cohere about one or more related topics.
 - a) Conversation is the most common form of discourse.
 - b) It has added feature of being a collaborative process between two or more participant who take turns in orderly fashion.
- A conversation is far more than a set of sentences produced by alternating speakers.
- Incomplete and ill-formed utterances are the norm in spontaneous conversation.
- We often experience processing delay during which we buy time with conventional fillers, words like "uh" and "um" that are semantically empty but are used to signal planning difficulties.
- Ill formed utterances also result from planning errors. Often times speakers will simply drop a structure in mid-sentence and start anew. Speakers will preserve with an errant sentence, attempting to steer it back to the intended message by tracking on additional phrases and clauses.
- Most of the meaning of a conversation resides not in the semantics of the individual words but rather in the pragmatics of the situation in which the conversation is taking place.
 - a) Participants observe the principle of no gaps/no overlaps at turn transition.
 - b) Turn-constructional unit is a syntactic structure, ranging from single word to a sentence than can make up a turn in a conversation.
- The listener plays an active role in a conversation by providing the speaker with backchannels that indicates points of understanding and confusion, thus helping to establish common ground and encouraging the speaker to continue.
 - a) Backchannels are signals like "mmhmm" and "uhhuh" from the listener indicate engagement and encourage the speaker to continue.
 - b) Overlaps are instances when multiple interlocutors speak at the same time.
- Turn allocation proceeds stepwise through three rules.

Sum

Turn-taking rules a) The current speaker selects the next speaker. eg P₁ asking a direct question

④ Common ground - set of info shared by all the participants of a conversation

⑤ Interlocutors - participants in convo

→ Transition relevance place → point in convo where listener can expect current speaker to end turn.

→ New speaker might start turn, but current speaker might continue

Beat → Avg time it takes to produce a syllable
Timing of steps in turn taking

- b) A listener self-selects.
- c) The current speaker self-selects the process through step 2 and 3 until a new turn begins.
- Participants in a conversation tend to match each other in terms of body movements, breathing rates and speech patterns in a process known as entrainment.
 - a) It is believed the endogenous oscillators, or neural circuits with regular firing rates are responsible for entrainment.

Narrative and references

- Conversation and narratives form two ends of a discourse continuum.
 - a) In case of conversation, interlocutors take turns constructing the discourse.
 - b) In case of narratives, one interlocutor dominates as narrator, although listeners still play an important role as co-narrators. or passive role as listeners
- Storytelling is cognitively demanding because the speaker and listener need to distance themselves from the here and now (decontextualization) as well as create and maintain a situation model of the narrative
 - a) Thus producing and comprehending narratives require executive functions such as memory allocation, planning and inhibition.
- Story grammar provides the frame work for narratives
 - a) A story consists of one or more episodes that depend for their construction and comprehension on the schemas we have about how the world works.
- Reference is the process of using a word or phrase to represent an entity.
 - a) Speakers need to judge what is in common or privileged ground when crafting referring expressions and likewise listeners consider common and privileged ground in the interpretation of those referring expressions.
- Relevance theory proposes that speakers strike a balance between too much and too little information in selecting referring expressions.
 - a) Likewise listeners assume that referring expressions are optimally relevant when interpreting them.
- Interlocutors collaborate to lone referring expressions
 - a) Clinical evidence suggest that implicit learning plays a more important role in building common ground than does explicit learning.

Anaphora and Inference v 1&2o 3

- Repeated name penalty is a delay in processing when the same referring expression is used on multiple consecutive occasions in a narrative.
- An anaphor is a word or phrase that refers back to an antecedent in discourse.

{ Prefrontal cortex → Most forward area of brain, responsible for executive functioning }

Turn transition

* Principle of no gaps / no overlaps

- General rule in turn transition.
- Don't leave noticeable silence b/w turns
- Don't begin new turn before current turn is finished.

* Backchannels

- Signals like minimum of uptake from listeners
- Indicate engagement.

Overlap

- Instances when multiple interlocutors speak at same time.
- Competition among interlocutors → ~~→ interpretation~~
- Solidarity among interlocutors → +ve interpretation

Situational Models

- ① Scheme → Mental framework for organising understanding of how some aspect of the world works.
- ② Situational Model → Mental representation of entities and events in a story and how they are related.

Relevance

- ① Common ground → Info shared by all interlocutors
- ② Privileged ground → Info one interlocutor knows but the others do not.
- ③ Relevance strategy → Grafting referring expressions → Strive for balance b/w too much & too little info.

Optimal relevance → neither too precise nor too vague

Negotiating Referring expression

- ① Resolving referring expressions uses common ground, situational cues, & patient's egos
- * Building common ground → Implicit learning from subtle social cue more imp than explicit only.
 - (1) Patients with amygdala damage (impacting implicitly) have difficulty with common ground
 - (2) Patients with hippocampus damage (impacting explicitly) have no such difficulty.

- a) Anaphors are memory retrieval cues, and the proper use of anaphora considerably eases the listener's comprehension of the discourse.
- The type of anaphor that a speaker chooses depends in part on the antecedents → ^{the} Nirav givenness, or the degree to which it is likely to be within the memory and attention span of the listener.
- We avoid the repeated name penalty by using a category anaphor, which is a noun-phrase anaphor that names the category that the antecedent is a member of. girl → Princess
- Noun-phrase anaphors that are more general in meaning are typically easier to process than those that are more specific.
- The next degree of anaphor is the pronoun. The speaker uses pronoun as often as possible to reduce cognitive costs. The listeners assume that a noun-pronoun anaphor where they'd expected a pronoun signals something important such as introduction of a new entry into the narrative or else a shift of focus.
- Pronouns convey minimal semantic content and provides nothing more than gender and number. Shr / he etc
- The last degree of anaphor is zero anaphor in which no overt anaphor is used even though anaphoric reference can easily be inferred. on conjunctions ~~This this can be written in~~
- Cohesion refers to the use of linguistic devices such as anaphors to bind the sentence of a discourse.
 - a) Coherence refers to the use of schemas content of the child's utterance with repetitions and elaborations.
- Some children with developmental language delay eventually catch up with the peers, but many experience disruptions of their socialization process.
 - a) Although their turn taking behavior is normal, their utterances are brief, marked by ellipsis and formulaic expressions, and they provide little content for caregivers to elaborate on.
 - There are two types of cospeech gesture:
 - a) Indexical-gestures are used to point to objects in the environment are referents in conversations.
 - b) Iconic-gestures are used to imitate actions. Iconic gestures tend to line up at the clause level in adult speech, and children do not master language-specific gesture patterns until grade school years.
 - Although children are sensitive to the emotional content of prosody when heard in isolation, they tend to ignore it when it conflicts with the semantics of an utterance.
 - a) As a result, they are prone to interpreting utterances literally.
 - b) They are however adapt at inferring speaker intentions from context cues.

Givenness Degree to which an antecedent is likely to be within my (attention span of listener).

Inference

① Bridging inferences use of logic or real world experience to fill gaps in a discourse.

→ Mark reached into the picnic basket. The beer was warm.

Inference → There was beer in the picnic basket.

② Predictive inference → Expectation of what comes next in a discourse, based on the sequence of events so far.

→ The frog told the princess: "Kiss me & I'll turn into a handsome prince"

Inference → The princess will kiss the frog

Theory of mind → Ability to make inferences about mental states & intentions of others

Speech Act

* Speech act theory - value of utterances

- Not in its literal meaning
- But rather in the intention of speaker
- And effect it has on listener.

* Indirect speech acts - Utterance whose literal & intended messages are not the same.

* Falses - Indirect devices as face-saving devices, give listeners a leg out, formal politeness.

Development of discourse ability conversational Turn-Taking

- Beginnings of turn taking in f2f interactions b/w infant & Caregiver.
 - (1) Infants initiate → Caregiver mimic infant vocalizations & facial expressions.
 - (2) Infants attracted to adult faces that mimic their current emotional state.

→ Perturbation Paradigm

Experimental procedure, disrupts normal infant-caregiver interaction,
Observe infant's response.

- Infant averts eye gaze, becomes agitated or disinterested.

→ Neutral face paradigm

- Caregiver shifts to neutral face while maintaining eye contact with infant.

→ Replay paradigm:

- Caregiver - infant interaction via Video Screen
- First live & then replay so no longer lines up with infant behaviour

late talkers understand conversational turn-taking, since that's learned in infancy +

- (1) Content of turns considerably reduced, rely on ellipsis or sentence fragments.
- (2) Make use of pointing to indicate referents.
- (3) Adapted use of backchannels, encourage others to talk ... they don't have to

Move content esp back → Indexical gesture & Iconic gestures

Co-speech Gesture (I)

- (1) One clause → Manner verb + Path preposition (English)
 - One co-speech gesture
- (2) Two clauses → Path verb + Manner verb (Turkish)
 - Two co-speech gestures

Paul Grice's Four maxims of conversation

- (1) Quality
- (2) Quantity
- (3) Relation
- (4) Manner

- Use of the Gricean maxims sometimes leads adults to make inferences that are not logical valid (although they are pragmatically sound).
 - a) Because it takes years for children to learn the Gricean maxims, they are some cases, as in the interpretation of quantity words like "some and all", where child think more rationally than adult.
- In specific language impairment, deficits in syntax and "expressive" vocabulary affect the ability to construct coherent discourse.
 - a) In pragmatic language impairment, the child displays no structural language difficulties but struggles with the social and pragmatic aspects of discourse, which lead to various behavioral disorders.

Cooperative Principle

- Speakers should follow social norms to tailor utterances to fit current needs of conversation.
- NOT a description of how conversation works.
- Rather, violations of cooperative principle are meaningful.

CoSpeech gestures (II)

- learning CoSpeech gestures with motion events.
 - Both English & Turkish speaking children:-
 - use two Co-Speech gestures, one for path & one for manner.
- Adults link up CoSpeech gestures with clauses.
- (i) Turkish-speaking adults → One Co-Speech gesture for path clause, another for manner clause.
 - (ii) English speaking adults → One Co-Speech gesture that combines path & manner information.