Rudeness, strangeness and verbosity
Complex communicative symptoms in acquired communication disorders

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Senior Lecturer, Department of Linguistics
Linguistics Seminar Series
Friday 8 March 2019
Projects

Verbosity and traumatic brain injury
  Jason Bransby
  Janine Mullay
  Christine Taylor
  Zia-Gallagher Beverley
  Rebecca McNeill

Right hemisphere stroke and conversation
  Lyndsey Nickels
  Steven Bloch
  Suzanne Beeke
  Wendy Best
  Sophie Toocaram
What do speech pathologists do?

• Speech pathologists work with people who have communication disorders

• Communication disorders are caused by disruption to the physical and cognitive bases for communication

• Speech pathologists diagnose and treat communication disorders

• This requires measurement strategies that:
  • Determine the *presence* or *absence* of a disorder
  • Characterise the *symptoms* of a disorder
  • Determine the *implications* of a disorder
Measuring communication

- Speech pathology measurement strategies tend to focus on capturing the symptoms of communication disorders
  - ...which makes sense!

- This typically involves controlled sampling of speech and language behaviours (e.g., testing, elicitation tasks)

- Measurement strategies focused on the implications of disorders are less well developed, because communication is:
  - Dynamic
  - Multimodal
  - Contextually-sensitive
Measuring communication

• Speech pathologists and researchers have attempted to access the implications of communication disorders using a variety of observational and report measures.

• These measures often involve judgement-based ratings completed by a speech pathologist, a person with a communication disorder, or their significant others.

• These measures simplify communication phenomena, and document them indirectly.
## Pragmatic Protocol

**NAME:**

**COMMUNICATIVE SETTING OBSERVED:**

**DATE:**

**COMMUNICATIVE PARTNER'S RELATIONSHIP:**

<table>
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<th>Appropriate</th>
<th>Inappropriate</th>
<th>No opportunity to observe</th>
<th>Examples and comments</th>
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<tr>
<td><strong>Verbal aspects</strong></td>
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<tr>
<td>A. Speech acts</td>
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<tr>
<td>1. Speech act pair</td>
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<tr>
<td>analysis</td>
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<td>2. Variety of speech acts</td>
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<td>B. Topic</td>
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<td>3. Selection</td>
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<td>4. Introduction</td>
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<td>5. Maintenance</td>
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<tr>
<td>6. Change</td>
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<tr>
<td>C. Turn taking</td>
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<tr>
<td>7. Initiation</td>
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<tr>
<td>8. Response</td>
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<tr>
<td>9. Repair/revision</td>
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<td>10. Pause time</td>
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<tr>
<td>11. Interruption/overlap</td>
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<tr>
<td>12. Feedback to speakers</td>
<td></td>
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<tr>
<td>13. Adjacency</td>
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<td>14. Contingency</td>
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# Targeted Observation of Pragmatics in Children’s Conversation (TOPICC) Observation Scale

Research Version

© Catherine Adams, Jacqueline Gaile, Jenny Freed, Elaine Lockton 2010

<table>
<thead>
<tr>
<th>CHILD ID</th>
<th>ALICC PICTURES SET</th>
<th>RATER ID</th>
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<tbody>
<tr>
<td><strong>Category</strong></td>
<td><strong>Rating (Circle choice)</strong></td>
<td><strong>Tally/notes</strong></td>
</tr>
<tr>
<td>Reciprocity/Turn-taking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties responding to questions</td>
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<td>1</td>
</tr>
<tr>
<td>Interrupts speaker frequently, or frequent pauses</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Reticence</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Taking account of listener knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving too much detail and information</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Giving too little information</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Verbosity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child dominates conversation</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Child uses too many questions</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Topic Management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Item 4. In the past week or so how well could you have a short conversation with an unfamiliar person?
Appendix

Clinical Rating Scale

To what extent do you agree with this statement:

The conversational pair sound like they are in-sync or aligned with one another.

Note that high ratings (scores above 4) are indicative of a natural cohesiveness to the interaction, smooth turn-taking and conversational flow, and a sense of rapport and connection between conversational participants and low ratings (scores below 4) are indicative of an awkward, disconnected, and disengaged interaction.

1. Strongly Disagree
2. Disagree
3. Slightly Disagree
4. Neutral
5. Slightly Agree
6. Agree
7. Strongly Agree
Theorising communication

• Communication tends to be approached intuitively, with few explicit theoretical frameworks employed

• This is attributable to:
  • the disciplinary roots of speech pathology
  • the occupational roles of speech pathologists
  • the inherently physical basis of communication disorders
  • a prevailing, largely implicit view of language as an abstract (cognitive) system of representations
FIGURE 2.1 Process of communication.
Measuring and theorising communication

• The implications of these practices and perspectives are:
  • reliance on intuitive judgements about features of communication
  • clinician reticence to engage with spontaneous communication
  • unclear distinctions between underlying concepts/constructs
  • ...and, as a consequence, measurement strategies with **questionable validity**
Conversation analysis

• Conversation analysis is designed to explore how people make sense of one another through interaction

• Conversation analysts examine the organisation of interaction
  • ...by documenting spontaneous interactions, and finely analysing their features

• Analysis proceeds on the basis that interaction is systematically organised, and that people are closely monitoring one another’s behaviour to make sense of its implications for the ongoing social activity
  • These public displays of understanding for one another are then available as an analytic resource
Conversation analysis

• There are a number of generic aspects of interaction that people must manage in order to maintain it, including:
  • Action forming and ascribing
  • Turn-taking
  • Repairing
  • Sequencing

• These organisational pressures are pervasively (but sometimes differently) relevant across interactional contexts
  • ...and seemingly across languages and cultures
CA and communication disorders

• Conversation analysis offers a theoretical and methodological basis for accessing the conversational realisation of communication disorders

• This can then inform the development of measurement strategies sensitive to the features of spontaneous communication
Cognitive communication disorder

- Cognitive communication disorder arises from changes to brain functioning during adulthood
  - e.g., stroke, traumatic brain injury, degenerative disease

- It is associated with impairments to the cognition supporting memory, attention, perception, and executive functioning

- It is **does not** involve impairments to the cognition supporting core aspects of language processing
  - e.g., phonological processing, semantic processing, syntactic processing
Cognitive communication disorder

• The symptoms associated with cognitive communication disorder manifest prominently in spontaneous communication
  • e.g., tangentiality, verbosity, perseverativeness, passivity, inappropriateness

• People with traumatic brain injury (TBI) and right hemisphere stroke routinely experience these communication problems
  • ...but there is little direct, empirical evidence of how they communicate in everyday life with familiar conversation partners

• There is a need to better understand the communication symptoms associated with these conditions, and the factors that mediate them
Turn-taking organisation

• Turn-taking in conversation is system-actic

• The system deals with both *turn construction* and *turn allocation*

• Administering the system has a number of consequences, including:
  • One party speaking at a time
  • Consistent transfer of speakership
  • Minimisation of gap and overlap
Turn-taking organisation

• Overlapping talk is reasonably common

• It is distributed around the edges of turns (and their sub-units)

• Speakers implement strategies to address overlap, including:
  • Dropping out
  • Cutting off and recycling talk
  • Modulating their prosody
  • Accounting for and topicalising the overlap
Study 1: Verbosity and overlap

• Over-talkativeness (i.e., verbosity) can be caused by TBI

• There is no comprehensive description of the symptoms of verbosity

• There are no dedicated speech pathology measures for verbosity

• Could there be evidence of verbosity in turn-taking patterns?
  • ...particularly, in the management of overlap?
Study 1: Verbosity and overlap

- Data collection in progress

- Sampling conversations involving people with a clinical diagnosis of verbosity

- Analysis so far has focused on one participant; “Annie”
  - Annie, 61 y/o, and suffered a head injury two years prior
  - Around 45 mins of conversation recorded with a friend (“Caroline”)

- Identified and analysed instances of persistent overlap in her conversations
Study 1: Verbosity and overlap

• Found that Annie treats overlap as problematic
  • ...indicating sensitivity to this aspect of turn-taking

• There were also instances in which overlap persisted in unusual ways
  • ...particularly, when Annie’s turn was additionally “misplaced”

• Conversation partners engaged in overt competition with Annie
Study 1: Verbosity and overlap

• Overlap holds potential as an measure of verbosity
  • ...but is obviously a joint achievement!

• Timing relative to the prior turn and its position in the sequence of turns may be important for “atypical” overlap
Response mobilisation

• Conversation poses various problems of coordination
  • e.g., deciding who should speak, when, and what they should say
  • This happens iteratively in every conversation

• Speakers may employ various “tools” to indicate who should speak (or act) next
  • i.e., they “mobilise responses” from others

• When a speaker employs response mobilising tools, a recipient is expected to:
  • ...respond, do so quickly, and do so in a particular way
<table>
<thead>
<tr>
<th>Tool type</th>
<th>Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Normative expectations associated with an action type</td>
</tr>
<tr>
<td>Turn design</td>
<td>Interrogative morphosyntax/particles</td>
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<tr>
<td></td>
<td>Prosody associated with interrogativity in the language</td>
</tr>
<tr>
<td>Turn allocation</td>
<td>Current speaker selects next speaker technique</td>
</tr>
<tr>
<td>Sequence organisation</td>
<td>Conditional relevance</td>
</tr>
<tr>
<td>Epistemic</td>
<td>Addressing matters known best by a recipient</td>
</tr>
<tr>
<td>Embodied</td>
<td>Gaze towards a recipient</td>
</tr>
<tr>
<td></td>
<td>Positioning and movement of interactants relative to one another</td>
</tr>
<tr>
<td></td>
<td>Voice projection (i.e., direction)</td>
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</tbody>
</table>

*a Based on Blythe et al. (2018), and Sacks et al. (1978), Stivers and Rossano (2010).
Study 2: RHD and response mobilisation

• Response mobilisation draws on foundational features of conversation
  • ...and therefore represents a possible starting point for programmatic study of RHD and conversation

• If people with RHD experience difficulty with addressing response mobilising tools, they may hold some promise for speech pathology diagnosis/assessment
  • ...if they don’t, then further features of conversation can be explored
Study 2: RHD and response mobilisation

• This study explored response mobilising actions addressed to a person with RHD in everyday conversation
  • “Bill”, 73 y/o, 5 years post-onset
  • Persisting problems with conversation

• Collected around 50 mins of conversation
  • ...involving Bill, his wife (“Adrienne”), and a friend (“Carli”)
  • ...capturing them speaking over lunch
  • Analysis focused on 61 response mobilising actions addressed to Bill
<table>
<thead>
<tr>
<th>A1</th>
<th>Aligning A2</th>
<th>Exemplars</th>
<th>A1 count in data corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summons</td>
<td>Response</td>
<td>A1: Jane?</td>
<td>3</td>
</tr>
<tr>
<td>Question (interrogative syntax)</td>
<td>Answer</td>
<td>A2: (looks to A1 speaker)</td>
<td></td>
</tr>
<tr>
<td>Request</td>
<td>Fulfilment</td>
<td>A1: Do you watch much TV?</td>
<td>17</td>
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<tr>
<td>Other-initiation of repair</td>
<td>Repair solution</td>
<td>A2: No, not really.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>A2: (passes the salt to A1 speaker)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>A1: Pass me the salt.</td>
<td>1</td>
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<tr>
<td></td>
<td></td>
<td>A2: I saw Jane yesterday.</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A1: You saw who?</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>A2: Jane.</td>
<td></td>
</tr>
<tr>
<td>Newsmarker</td>
<td>Expansion</td>
<td>A0: I saw Jane yesterday.</td>
<td>3</td>
</tr>
<tr>
<td>Recognition solicitation</td>
<td>Confirmation/go-ahead</td>
<td>A1: Oh really?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A2: Yeah, she was at the station.</td>
<td></td>
</tr>
<tr>
<td>Offer</td>
<td>Acceptance</td>
<td>A1: You remember Jane?</td>
<td>3</td>
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<tr>
<td>K- assertion</td>
<td>Confirmation</td>
<td>A2: Yeah.</td>
<td></td>
</tr>
<tr>
<td>Leave-taking</td>
<td>Leave-taking</td>
<td>A3: She’s visiting next week.</td>
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<tr>
<td>All A1s</td>
<td>-</td>
<td>-</td>
<td>61</td>
</tr>
</tbody>
</table>
Study 2: RHD and response mobilisation

• Each response mobilising action was evaluated along the following parameters:
  • ...whether Bill responded
  • ...whether his response was delayed
  • ...whether his response was fitted

• Resulted in two primary groupings:
  • Candidate typical responses (27/61)
    • ...which were present, prompt, and fitted
  • Candidate atypical responses (34/61)
    • ...which were absent, or delayed, and/or ill-fitted
Study 2: RHD and response mobilisation

• In general, Bill was able to regularly and unproblematically analyse the implications of response mobilising tools directed towards him in conversation
  • ...even delayed and ill-fitting responses seemed to have relatively transparent reasons

• There were, however, a small number of highly salient instances where he failed to comply with them
  • ...in unusual ways!
Study 2: RHD and response mobilisation

- Core aspects of the conversational practices used by people with right hemisphere damage are largely consistent with typical speakers, with some infrequently observed differences
  - e.g., Hird and Kirsner (2003), Kennedy (2000), Wolf et al. (2014)

- People with right hemisphere communication disorder may not, on average, be less sensitive to response mobilising tools than typical speakers
  - ...its potential value as a clinical focus may lie in operationalising infrequent but highly atypical conversational moments

See our OSF site here: https://osf.io/bmrz6/
Conversation-based measures?

• We need to understand communicative environments in which symptoms become apparent
  • ...just as it is important to delineate the aspects of cognition that are impaired

• This will provide ways forward for measures suited to cognitive communication disorder
  • ...as well as for studies exploring the nature of these disorders

• There are substantial potential pay-offs for theories of these disorders
  • ...e.g., understanding simultaneous influences of interactional pressures, cognitive processing, and cognitive deficits on generating the symptoms of cognitive communication disorders
Conversation-based measures?

• Rating scales and other indirect measures will likely persist
  • …largely because of their clinical usability

• However, we can improve these indirect measures by integrating concepts and findings from conversation analytic research

• Computer aided analyses might also hold some potential
  • Particularly, programs able to quickly and easily isolate silences and overlap
  • …for a person to then analyse!
THANK YOU!

# ORAL PRESENTATION EVALUATION

Name of Presenter: ___________________________ Department / School: _______

Platform Session: ____________________________

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<th>Content</th>
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<th>Average</th>
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<tr>
<td>Clarity of content</td>
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<td>4</td>
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<tr>
<td>Quality of content (background, methodology, findings, etc.)</td>
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<td>Originality and complexity of project</td>
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<td>Significance of project (to field of study, community, etc.)</td>
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<td>Logical flow of sections/ideas</td>
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<tr>
<td>Clear thesis and supporting data</td>
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<td>Clear voice with good pace</td>
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<td>3</td>
<td>4</td>
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<td>Command of language/avoiding jargon</td>
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<td>4</td>
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<tr>
<td>Response to questions</td>
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<tr>
<td>Comments on Delivery:</td>
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**THANK YOU!**

I liked the videos

Slides were dull

Haircut & shave please