

Rudeness, strangeness and verbosity

Complex communicative symptoms in acquired communication disorders

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Linguistics Seminar Series

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Projects

Verbosity and traumatic brain injury

Jason Bransby

Janine Mullay

Christine Taylor

Zia-Gallagher Beverley

Rebecca McNeill

Right hemisphere stroke and conversation

Lyndsey Nickels

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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 assess 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: _____

DATE: _____

COMMUNICATIVE _____

COMMUNICATIVE PARTNER'S _____

SETTING OBSERVED _____

RELATIONSHIP _____

<i>Communicative act</i>	<i>Appropriate</i>	<i>Inappropriate</i>	<i>No opportunity to observe</i>	<i>Examples and comments</i>
<p><i>Verbal aspects</i></p> <p>A. Speech acts</p> <p style="padding-left: 20px;">1. Speech act pair analysis</p> <p style="padding-left: 20px;">2. Variety of speech acts</p> <p>B. Topic</p> <p style="padding-left: 20px;">3. Selection</p> <p style="padding-left: 20px;">4. Introduction</p> <p style="padding-left: 20px;">5. Maintenance</p> <p style="padding-left: 20px;">6. Change</p> <p>C. Turn taking</p> <p style="padding-left: 20px;">7. Initiation</p> <p style="padding-left: 20px;">8. Response</p> <p style="padding-left: 20px;">9. Repair/revision</p> <p style="padding-left: 20px;">10. Pause time</p> <p style="padding-left: 20px;">11. Interruption/overlap</p> <p style="padding-left: 20px;">12. Feedback to speakers</p> <p style="padding-left: 20px;">13. Adjacency</p> <p style="padding-left: 20px;">14. Continuers</p>				

Targeted Observation of Pragmatics in Children's Conversation (TOPICC) Observation Scale Research Version

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CHILD ID		ALICC PICTURES SET				RATER ID	
Category	Rating (Circle choice)				Tally/notes	Guidance notes	
Reciprocity/Turn-taking							
Difficulties responding to questions	0	1	2	3		Child shows no or tangential response to adult initiation or response that does not reflect the speaker's intention or ignores speaker altogether; repeats question	
Interrupts speaker frequently, or frequent pauses	0	1	2	3		Child misses cues to take turns either by interrupting or pausing excessively between turns	
Reticence	0	1	2	3		Child is hesitant to contribute to conversation/respond. Conversation is hard work	
Taking account of listener knowledge							
Giving too much detail and information	0	1	2	3		Child provides unexpected and excessive amount of detail in responses and/or provides unsolicited information	
Giving too little information	0	1	2	3		Child provides under-elaborated accounts of events. References are unclear.	
Verbosity							
Child dominates conversation	0	1	2	3		Child dominates the conversation by frequent initiation or lengthy responses	
Child uses too many questions	0	1	2	3		Child repeatedly questions the interlocutor	
Topic Management							

Item 4. In the past week or so how well could you have

a **short conversation** with an **unfamiliar person**?



Couldn't
do it at
all

With a
lot of
difficulty

With
some
difficulty

Quite
well

Very
well

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

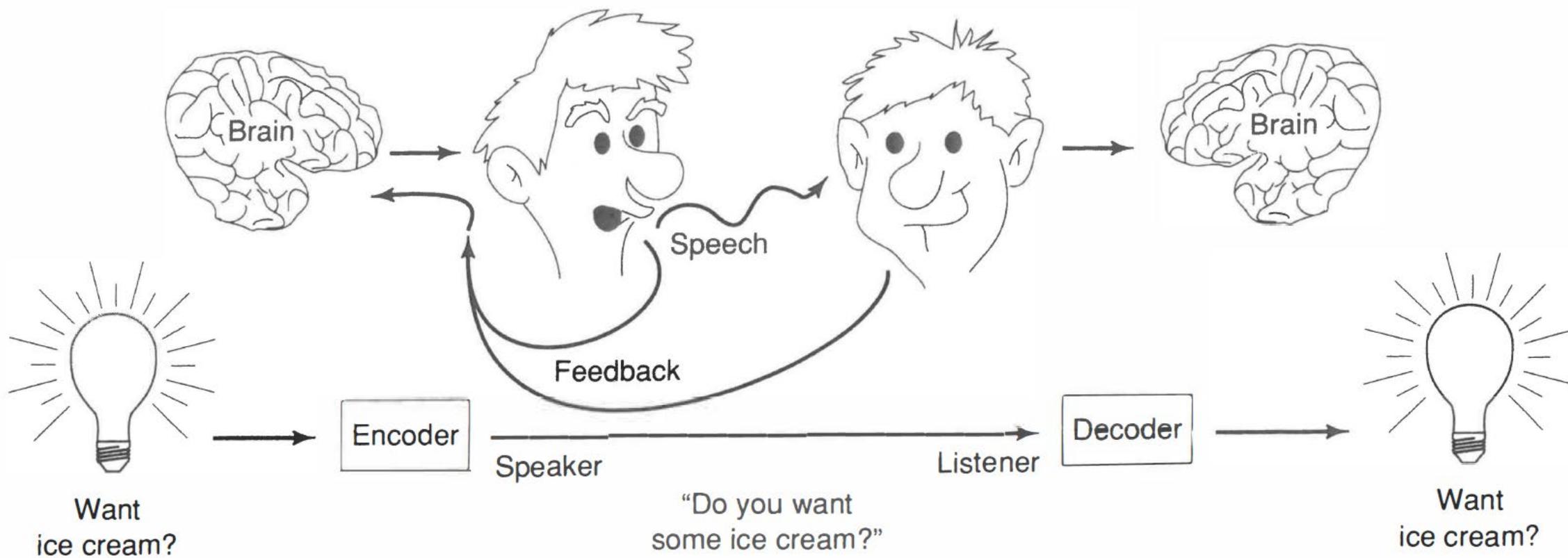


FIGURE 2.1 Process of communication.

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 1Response mobilising tools in conversation.^a

Tool type	Tool
Action	Normative expectations associated with an action type
Turn design	Interrogative morphosyntax/particles Prosody associated with interrogativity in the language
Turn allocation	Current speaker selects next speaker technique
Sequence organisation	Conditional relevance
Epistemic	Addressing matters known best by a recipient
Embodied	Gaze towards a recipient Positioning and movement of interactants relative to one another Voice projection (i.e., direction)

^aBased 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 3

Response mobilising actions in the present data corpus.

A1	Aligning A2	Exemplars	A1 count in data corpus
Summons	Response	A1: Jane? A2: ((looks to A1 speaker))	3
Question (interrogative syntax)	Answer	A1: Do you watch much TV? A2: No, not really.	17
Request	Fulfilment	A1: Pass me the salt. A2: ((passes the salt to A1 speaker))	1
Other-initiation of repair	Repair solution	A0: I saw Jane yesterday. A1: You saw who? A2: Jane.	8
<u>Newsmarker</u>	Expansion	A0: I saw Jane yesterday. A1: Oh really? A2: Yeah, she was at the station.	3
Recognition solicitation	Confirmation/go-ahead	A1: You remember Jane? A2: Yeah. A3: She's visiting next week.	3
Offer	Acceptance	A1: Would you like some of this? A2: Yes, please.	4
K- assertion	Confirmation	A1: He's your brother? A2: That's right, yes.	21
Leave-taking	Leave-taking	A1: See you later. A2: Bye <u>bye</u> .	1
All A1s	-	-	61

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!

ORAL PRESENTATION EVALUATION

Name of Presenter: _____ Department / School: _____

Platform Session: _____

	Poor	Average	Good
Content			
Clarity of content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of content (background, methodology, findings, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Originality and complexity of project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Significance of project (to field of study, community, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support main points	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments on Content:</i>			

Organization			
Appropriate use of media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Clear thesis and supporting data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informative and clear project summary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments on Organization:</i>			

Delivery			
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Engaged with audience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear voice with good pace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Command of language/avoiding jargon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response to questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments on Delivery:</i>			

THANK YOU!

ORAL PRESENTATION EVALUATION

Name of Presenter: Scott Department / School: _____

Platform Session: _____

	Poor	Average	Good
Content			
Clarity of content	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of content (background, methodology, findings, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Originality and complexity of project	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Significance of project (to field of study, community, etc.)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Support main points	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments on Content: I liked the videos

Organization			
Appropriate use of media	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Smooth transitions between topics	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logical flow of sections/ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clear thesis and supporting data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Informative and clear project summary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments on Organization: Slides were dull

Delivery			
Professional and confident	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Engaged with audience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clear voice with good pace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Command of language/avoiding jargon	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Response to questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments on Delivery: Haircut & shave please

THANK YOU!