Scaffolding conversations using augmentative and alternative communication (AAC)

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Abstract

Non speech methods of communication, such as the use of gesture and signing along with pointing or indicating icons on a screen or display is known collectively as Augmentative and Alternative Communication (AAC). This paper is not research driven but does explore the critical role of the speaking communication partner in enabling and empowering the user of AAC to have a voice in social interactions. Transcription analysis is used to examine what communication partners do in three recorded interviews with people who have difficulty with spoken language. It is proposed that there would be more efficient and inclusive discourses if more communication partners through in-service and pre-service training, were comfortable with scaffolding techniques.

Keywords: AAC, disability, communication partner training, discourse analysis, conversation analysis.

Introduction

Most people are fortunate to develop and/or retain spoken language throughout their lifetime and in doing so engage in activities which foster or maintain their social inclusivity. When someone loses their ability to communicate, especially with speech, then their ability to participate symmetrically in discourse is often negatively affected. Symmetry in discourse refers to the ability to engage equally with a

communication partner in terms of initiating, maintaining, switching, repairing and closing a conversation. Whilst not every AAC method and symbol set allows for the expression of language for conversational purposes, there are strategies which enhance and enrich the communicative attempts made by the user of AAC. One such strategy is scaffolding.

The Australian Government (The Australian Government, 2012) describes a socially inclusive society as one which provides all Australians with the resources, opportunities and capabilities to learn, work, engage and have a voice in order that they can influence decisions which affect them. *All Australians* does not discriminate between those who can speak and those who cannot. This approach to disability has evolved from perceptions based on normal and abnormal, to perceptions of mainstream and different.

AAC can be defined from a broad, functional or domain perspective (Communication Matters, 2011; Everyone Communicates 2011; Novita, 2010; Sigafoos, Schlosser, & Sutherland, 2013; Speech Pathology Australia [SPA], 2004). The definition as well as the style of application is dependent upon the knowledge, skills, and motivations of stakeholders who come from different backgrounds and a wide variety of experiences. Ultimately the success of interactions where AAC is used, depends on how well integrated these factors are in enabling symmetry in discourse where the speaker and the user of AAC have equal capacity to have their voice heard.

Particularly in the last fifty years, research has shown that AAC, using singularly or in combination, signing, gestures and pointing enhances interactions, improves quality of life and social inclusion and reduces communication frustration. (Basil, 1992; Beukelman & Mirenda, 2005; Cafeiro & Meyer, 2008; Frea, Arnold, & Vittimberga, 2001).

Three samples for discourse analysis were selected to illustrate the broad application and implications for the use of scaffolding. The sample includes a lady with Down Syndrome who has limited speech interacting with a radio announcer, a doctor interacting with a gentleman who has no speech and a therapist interacting with a little girl believed to have no spoken language. In each interaction the aim of the speaker would be to engage rather than interrogate the other person. Transcription enables the reader to assess how successful this aim is and to explore scaffolding as one tool in communication partner training.

Incidence

The incidence of people with complex communication needs and the incidence of people using AAC to supplement or substitute for lack of functional speech is unclear. Lack of functional spoken language may result from acquired disabilities such as stroke, traumatic brain injury or degenerative disease. It may also arise from developmental conditions such as cerebral palsy, Down syndrome, autism and developmental disability. Lack of community awareness of the role AAC can play in people's lives and that speech is only one vehicle, not the vehicle for thought, may well have resulted in a very conservative global estimate of how many people in our society have complex or severe communication needs. For example, in Victoria it is estimated that 1 in 500 have a complex communication need (Perry, Reily, Cotton, Bloomberg, & Johnson, 2004) . The Scottish Government report in 2007 that ' Given the range of the data we would take the position that it is reasonable to assume that a conservative estimate of the number of people with marked communication needs such that they would find it difficult to communicate their needs effectively without help would be in the region of 1-2% of the population' (The Scottish Government, 2007). In the US the range from 0.1–1.5% 'of the population are considered to have such severe speech-language impairments that they have difficulty making themselves understood and thus could benefit from AAC'. Lindsay, Dockrell, Desforges, Law and Peacey (2010) report on data that was used to inform the UK Bercow Report (2008), suggested that 1% of five year old children had 'the most severe and complex speech, language and communication needs 'and that these children often need to use augmentative and alternative means of communication and are likely to have a long-term need for specialist help in school, and beyond' (p. 449).

If some of our most recent data suggests 1% of five year olds alone may have a complex communication need requiring AAC and where this population group is high on society's awareness and early intervention agenda it would seem reasonable that an estimate of 1% of a population needing AAC support is indeed conservative. Communication is a fundamental human right and whether it is achieved with or without speech, it is still a right and something we should be endeavouring to enable all humans to achieve and enjoy.

Augmentative and alternative communication

Most of us use multi modal communication – this being a combination of unaided methods such as speech, facial expression, body language, gesturing, signing, and pointing. Also there may be use of tools where an add-on is used such as a microphone, switches, communication displays, pens and keyboards. AAC refers to one or more of these methods and/or tools being used to compliment any residual spoken language a person may have.

Current research indicates that there is no strong evidence for the use of one AAC method over another (Millar, Light, & Schlosser, 2006) and that there is no evidence to suggest that use of AAC hinders the development of speech (Schlosser & Wendt, 2008). Finding the balance between what the user of augmentative communication needs and what their communication partners can handle can be a challenge.

The field of AAC is relatively young and has seen dramatic changes in the last twenty years. These changes have arisen with developments in technology, our understanding of communication processes, the renewed visibility of disability/difference and shifts from and between the medical, social and the International Classification of Function (ICF) models of disability (Fried-Okem & Granlund, 2012). The field of Discourse Analysis is also relatively young with the first handbook of discourse analysis appearing in 1985 (Van Dijk, 1985). It is unclear in the literature why discourse analysis hasn't been used to a greater extent to explore both the qualitative and quantitative behavior of users of AAC as well as their communication partners.

Communication partners

Communication partners for someone with communication impairment come from many walks of life. Some communication partners will hold more power and status in the relationship. Some communication partners will be transitory. All will come to an interaction with diverse skills, agendas, motivations and incentives to fulfill their role. In this paper three primary communication partners representing the media, medicine, and home-therapy settings, provide a snap shot of styles of discourse which may be seen through transcription.

The author has been unable to locate literature indicating a correlation between the model of disability which a communication partner is most comfortable

with, and their ability to be an effective and efficient communication partner. Indeed, very little appears to be documented about the specific attributes which communication partners bring to *their* discourse with the communicatively impaired and why. This has been a long standing interest area of the author and one which begs greater attention in the research in order to inform and develop practice and research in key areas such as assessment, early intervention and rehabilitation models for people with disability. It takes more than one person to have a conversation. We need to pay equal attention to the qualities and needs of *all* parties in interactions.

Scaffolding

The idea of scaffolding a conversation into levels which focuses attention on the skills of their communication partner was first developed in 1992 as part of the author's work with a Queensland Facilitated Communication Project (DFSAIA, 1993).Levels1-3 are demonstrated on You Tube footage (OptionsCTC, 2009).

Four levels provide the foundation for moving from open to closed styles.

Table 1

Scaffolded Conversation

Level 4	Wait	Provide time for the user of AAC to engage, plan and initiate their communication.
Level 3	Ask	Ask open ended questions which set the context i.e. are you trying to tell me about (context word)/ how are you feeling/ what are you trying to tell me? Some contexts will warrant assistance with word finding where a person may be helped by the communication partner starting the sentence for them i.e. ' you were trying to tell me about ___' or ' dating is great because____'
Level 2	Select choices	Provide some choices i.e. are you telling me about the movie or something else? / are you feeling good or not good?/ can you tell me another way? (yes:no)/ is it great because it's good to have company, to go places or maybe both these things?'
Level 1	Dictate	Dictate a course of action which may help resolve the communication breakdown i.e. ' tell/show me who can help us out here/ show me how you indicate 'yes'/ show me how you point to 'yes' on your communication board'.

An ultimate goal of most conversations is to enable a balance in turn taking and expression between the speakers. To use spontaneous expression there needs to be an adequate complement of language structures and styles. In the 'scaffolded' framework, this is referred to as *level 4* and interestingly does not occur in any of the transcripts in this paper. Hence the person with the communication impairment, for some reason or reasons, is not achieving equal status in the interactive relationship. Barriers to a level 4 occurring may include: the need for a smooth and well paced discourse to maintain listeners attention in a radio interview (Transcript A); the power and status of the relationship (Transcript B), and the pace of multi tasking in a teaching and therapy role (Transcript C). Further, in all transcripts the interviewee has varying degrees of access to expression with and without AAC tools.

To elicit spontaneous expression (level 4) the communication partner might look expectedly, provide adequate time for the other person to initiate or cue with a non contextual starter such as 'what would you like to talk about?' If the person with a communication impairment is not provided by their communication partner with level 4 opportunities such as time, signals of approval and expectation, and is unable to initiate or be understood clearly then the communication partner scaffolds down to *level 3* by supplying contextual information. For example, "I hear you are dating? I'd love to hear about that."

Again, if at this level of suggested topic the person with the communication impairment is unable to successfully engage then the level is dropped to choice making. *Level 2* does not refer to two choices being presented. For example, "Have you been dating for a short time, many months or years?". Choices might be spoken, written, signed or drawn. It is important however, to remember that without visual referents memory can be taxed by too many options.

It is often easy at level 2 for communication partners to use and get stuck with yes/no options, which can be better than nothing but may still not enable the communicatively impaired person to present themselves in the best light. Coaching may be required to ensure that communication partners show initiative and imagination to select choices which are viable i.e. "Would you like to draw a picture now, later, or not at all?" Providing choices may also be helpful for people with communication impairment who experience stress, anxiety and word finding difficulties. In these instances scaffolding can also include a sub level of 'sentence completion' whereby the communication partner starts a sentence for the person to

complete i.e. “we were talking about drawing a picture of ….”, or “now, you live in ….”

Finally, *level 1* refers to dictation – occasions where the communication partner models a response by suggesting or informing. For example, “my notes say that you live in Toronto, show me the word Toronto on your communication display” or, “I will write some numbers and you stop me when I get to the one you need.” Care needs to be taken at this level not to ask indirect questions which may infer a yes/no answer. For example, “Can you show me the word Toronto?” when in fact the speaker is giving a directive – “show me Toronto.” Level 1 is also a level for feedback to help maintain the conversation and facilitate a response through comment.

Transcriptions

Tracy and Mirivel (2009), describe discourse analysis at its simplest level between speakers, as a five stage process of ‘recording interaction; transcribing the tape; repeated study of the tape; formulating claims about the conversational moves, structures and strategies demonstrated in the interaction; and then building an argument with transcript excerpts that are analyzed.’ Although there are some complex transcription tools available, the author referred to coding used by (Du Bois, Schuetze-Coburn, Cumming, & Paolino, 1993; Jefferson, 1984; Von Tetzchner & Basil, 2011). Key features of the Jeffersonian codes are shown in Table 2 below.

Table 2

Coding Used in Discourse Analysis

Code	**Representing**	**Example**
I	Initiation	Can be a question, directive or look of expectancy. *'Tell us about that first meeting."*
Q	Question	Tran script Bb line 1. *"You live here?"*
Comm.	Comment	Transcript Bb line 7. "*you know this book better than I do."*
Stat	Statement	Transcript A line 24. *"just tell them about what sort of man David is?"*
Info	Information	Trancript Cb line 8. *"two hands went down."*
R	Response	Transcript Cb line 47 *"yeh"*
F	Feedback	
+	Positive	Transcript Cb line 44 *"well done"*
-	Negative	Transcript A line 7 *"<@no, no @>*
/	Neutral	
…( )	Timed pause	Transcript Ba line 5 …(10) "*How long is it now that you've had difficulty?"*
___	Nuclear stress	Transcript B, line 6, *"Tell me, can you.. say the word 'dog?'"*
<@ @>	Laughter	Transcript A, lines 7-14
<r r>	rapid speech	Transcript A, line 9 "<r who, who? r>
[ ]	Descriptor	Description of body language

The transcriptions in Appendix 1 show six columns denoting a number of key features which are considered to have significant contribution to data coding and analysis. These are:

1. The time set on the video recording. This is important to illustrate how long and interaction may take particularly from the user of AACs perspective. It may also help readers to see how long a topic may take to become established. This type of data can be useful when exploring actual time which needs to be accommodated for not only at a surface level in conversation but for contextual scenarios such as meetings.
2. The line number of the utterance. Using line numbering assists with location of utterances but also serves to illustrate the amount of time held by speakers. The author has found this to be a useful tool to illustrate to communication

partners how often they do speak rather than allow the user of AAC time to process and plan their response.

3. The speaker. Initials are used to represent who is speaking in the discourse.
4. The utterance. The utterance can be written in phonetic script or plain text. I have chosen to use plain text as this article is for the general community readership and not for professional groups who are specifically interested in motor speech or other structural aspects of speech.
5. The scaffold level used by the communication partner is shown as a number representing the levels 1-4.
6. The speech act. This refers to how the message was intended to be sent – as an initiation (often a question), a response or as feedback.
7. A shaded area to highlight where a conversational routine occurs as indicated by a pattern of **I**nitiation followed by **R**esponse and **F**eedback.

Whilst some non verbal data is recorded the author has focused the transcription on spoken language but recognizes that transcription of non verbal data can also give information regarding the tone of the conversation. For example, in transcript B the doctor is seen to look subtly at the watch on his wrist which may signal to the patient that the doctor is getting impatient or not valuing the conversation and this in turn may act as a barrier to spoken and non spoken language being attempted.

Table 3

Initiation, Response, Feedback.

18	D	Are we talking about Etobicoke?	2	Iq
19	G	Yah , yeh yah, yah, yah		R
20	D	That's where I'm from too		F

It is possible to also see exchange patterns that are pronounced as a series of questions with no responses (Transcript A lines 15, 21)

Table 4

No Responses

5	LD	What happened after that?	4	Iq
16		…3		
17	NM	Well, well tell, us um about um that first meeting..	3	Iq rep.line 1
18		.. how did he capture your attention?	3	Iq
19		..Tell us about David	1	Idir

Interactions without scaffolding for a response or accommodations such as allowing sufficient time and using a vocabulary which includes rather than excludes does not promote social inclusion. Similarly, when there are opportunities for a response but there is no feedback, social exclusion can occur simply because the interaction has an interrogation rather than conversational style. See Table 3.

Table 5

No Feedback

1	D	Can you er um um your age, how old are you?	3	Iq
2	G	[shrugs]		R
3	D	…9 Ok, um…3 just er just er so that I can get a feel for what you can understand, do you think you can understand everything I say?	2	Iq
4	G	[shrugs]		R
5	D	…10 How long now has it been now that you've had difficulty	3	Iq

Analysis

Norman Fairclough (1993, p. 1), views discourse as a method of studying social change. In a discourse, if a conversation is scaffolded there can be greater opportunity to study social change and view the interaction from the critical discourse analysis perspective. Scaffolding can also measure opportunities for social inclusion through choice making and open ended interactions.

Interaction A is between an interviewer for ABC Radio National and a young woman with Down Syndrome on August 2nd 2012. The opening of the interview provides an illustration of open ended questions for which there are unsatisfactory

responses until line 29. Prior to the interview communication partner training may have assisted the interviewer to be better prepared with her choice of vocabulary, allowance of time for processing and planning of responses and scaffolding of questions from those which are open i.e. “Tell us about David?” to those which are more closed.

The listener or observer of this discourse may be left with an impression that the person with the disability relied heavily on the skills and resources of an able bodied speaker and was perhaps more disabled than they in fact were. The speed, tone and vocabulary choice of the interviewer appears to set the interviewee up for failure. Not only could open questions have been scaffolded down i.e. line 1 repeated again at line 17, “tell us about that first meeting” may have been rephrased “tell us about that first meeting, did you meet at a party, at the shops or somewhere else?” .In addition, vocabulary such as ‘first impressions’, ‘your chap’, ‘acquainted’ and ‘captured your attention’ could have been simplified. Whilst the literature advised communication partners to speak simply and clearly, this does not mean that vocabulary has to be ‘dummied down’ or a parentese style used. Using simple language may just mean using plain English with few redundant words.

It is unfortunate that the style of the interview resembles an interrogation for this segment of the interview and includes laughter at the interviewee’s expense, a request to edit the interview (line 22) and a need for the interviewees coach to try to repair some of the communication breakdown. If the radio interviewer had been better prepared for the skills she would need to use when interviewing someone with communication impairment, the impression of the interviewee and their participation in the subject of dating and disability may have left a more positive impression on radio listeners.

Interaction B is a two stage transcript of segments of an interview between a doctor and a sixty year old gentleman, Gerry, who incurred a stroke. These interviews, but not the transcripts, are commercially available from the Supported Conversation project of the North York Aphasia Centre, Toronto. As with Interaction A, the interviewer uses predominantly open questions with no scaffolding. Except in this interview there is no time pressure and ample time is allowed for Gerry to respond – except he cannot without scaffolding and access to AAC.

Following communication partner training, the doctor is recorded again but this time visual methods of communication are available (even though these are in

closer proximity to the doctor than the person they were designed for). Most interesting is that there are now two examples of a conversation pattern, within the discourse (lines 9-11 and 18-20). In addition there is a perceptual transition from "Can you say the word dog?" To perceiving that Gerry understands his position in space relative to a compass bearing. When asked where he lives, Gerry clearly points in a direction and this surely implies greater depth of understanding of Gerry's capabilities than first implied in the question "Can you say the word dog?"

Using AAC enables choices to be written and words and pictures accessed in the interaction. Conversation can therefore be scaffolded from a level 3 to a level 2 and a response made. This in turn can provide an opportunity for feedback and inclusion in the social activity.

Interaction C is between a four year old girl with Rett Syndrome and her speech language pathologist. Also in the interaction are the girl's mother and a student observer. The speech language pathologist has a role in the interaction to engage the child but also model and provide information to the other two parties whilst being filmed in this unrehearsed scenario.

This is an interesting transcription because although AAC is used, the child appears not only to be trying to approximate words but to demonstrate phonemic awareness – a skill which will be imperative should she move to a literacy based mode of communication. The suggestion is made that without a transcription of the discourse it would not be as easy for key stakeholders and communication partners to see and recall the capacity and language/literacy needs of this child. She may well be underestimated and be at risk of learned helplessness (Basil, 1992).

The pace of the interaction is fast and there is an air of presumed competence (Biklen, 2012). The child has access around her to symbolic communication as well as natural gesture, body movements and vocalizations. To enable the child to respond to the impromptu script of the session the therapist uses scaffolded language and choice making through written choices, objects and body movements. Literacy is included in the activity in recognition that symbols and drawings will never provide access to novel and generative language which users of AAC need and that 'we must feel a deeper sense of incompleteness, of greater uneasiness, when we do not find literacy in the therapies, instruction, and daily experiences of children who use AAC…we must act on a new belief that AAC programs without literacy are not AAC' (Koppenhaver, 2000, p. 271).

In this interaction there are many examples of level 1 used to provide directives and constructive feedback. In six minutes there are fifteen conversational routines demonstrating that the use of choices at level 2 provided a response opportunity which the child could use to maintain social inclusivity with the activity. Finally, provision of level 2 choices enabled a model to be set for spoken language and the child's spoken approximations to be seen through transcription. There appears to be close approximations to words by syllabification (lines A30, B15 and C6) and speech sounds (lines A24, 35, 42; B28, 41, 47 and C3, 8, 12, 21, 23). The pace of the interaction is brisk but no brisker than had been observed in class settings with other children competing for attention and meeting of their needs. The pace of the interaction may also be matching the child's natural body cadence. As the child is generally described as non verbal with complex communication needs it is especially helpful to see how scaffolding enables the listener to tune hearing and perception of the child's speech patterns and in doing so gain an appreciation of competencies and needs.

Discussion

We can consider shared language as a set of mutually known symbols or signals from which we derive meaning to social inclusion and advancement. However, this definition only holds true for people whose communication symbols are accessible, meet their needs and are understood by their communication partners. These communication signals must include a variety of forms such as nouns, questions, adjectives, verbs, expletives, polite forms and grammar markers. It is not ethical or adequate to restrict the functional lexicon for someone with communication impairment to nouns. No one can have a conversation merely with a repertoire of nouns. Linear models of communication emphasize the sender as the dominant party. It is the sender who has the skills to initiate, maintain and switch the topic often simply by getting there first.

Users of augmentative and alternative communication and speakers with communication impairments need additional time to process and plan their communication. Without adequate time and pacing of the discourse they seldom grasp and maintain this role. Further, without accommodations by communication partners which may include seeking clarification, refining signal interpretation skills,

scaffolding and using AAC tools and strategies it becomes very hard to progress from a linear model of communication to a transactional model. In a transactional process model (Tyler, Kossen, & Ryan, 2005, p. 21) there is recognition of the multi tasking and relationship development that occurs in interactions. To achieve this there has to be attention to what, how and why message signals are being communicated. By making the effort to attend the probability of motivating the person with communication impairment may increase and there may be less chance for learned helplessness or lowering expectations.

Tajfel (1981) writes that "language is a social phenomenon. As such, it is embedded within wider social processes and relationships of power" (p. 92). People with communication impairments need to experience opportunities to demonstrate their knowledge and skills, especially with those who hold most power and status in the community and in their lives. To this end they need access to unrestricted and uncensored communication. The person with communication impairment has to have access to a vocabulary that enables a shift from interrogation style interactions of **I**nitiation (question) and **R**esponse to a conversational style which reflects feedback to allow topic maintenance and greater engagement there has to be a vocabulary. This means that if a discourse necessitates the use of key word signing then the communication partners have to know and be confident to model and teach a repertoire of words which include questions, adjectives and expletives. If the communication display, especially low tech, is topic based (meal times) then there also has to be vocabulary to engage in the topic and shift around and from it i.e. 'what's next?'/'that was …'/'not'/'yummy'. It is not longer adequate to keep users of AAC 'at heel' because of the unfulfilled needs of communication partners.

Communication partner training should be a high priority at all stages in intervention planning. Communication partners will come from all walks of life and will have invaluable roles in seeking out and fostering social inclusivity. Consequently teaching tools and resources need to be user friendly. Heath and Bryant (2008, pp. 87-88), list seventeen dominant themes which guide communication theory and research. These include 'uncertainty being uncomfortable.' Scaffolding is a tool which fosters listener attention to impaired speech and AAC access and in doing so may improve comfort levels. If conversation was not scaffolded in Transcripts B and C the communicatively impaired person would not be able to be understood. In Transcript C the speaker is able to discern a

two syllable utterance with vowel approximation. If the open question "what shall I put behind him?" was asked, lack of intelligibility or any response may well have prevailed.

Table 6

Illustration of Initiation-Response-Feedback

29	T	So I'll put mummy or a cushion behind him?	2	I q
30	E	oo a		R
31	M	Cushion		F

In Transcript B the communicatively impaired person, G, may be responding verbally but initiates pointing and then reaching for his communication book to better engage in the conversation. Interestingly the communication book is in the doctor's body space and the doctor comments that the user "knows this book better than I do," – which is what one would hope to be the case.

Table 7

Use of Spoken and Non-spoken Language

4	G	Dododododo [points to his communication book]	R/I
5	D	in Toronto?	Iq
6	G	[reaches for his communication book]	R
7	D	You know this book better than I do-eh?	Icom

Barriers to communication are cited by Tyler et al. (2005, p. 254), as lack of access to resources; sound, visual distractions and comfort factors. Lack of access to resources, in this case the augmentative communication book, is a significant barrier and one which can be a common occurrence in the lives of people with communication impairments. To varying degrees, in all three transcripts the able bodied, speaking people are the dominant force in interactions. They hold the most status and power. They maintain control of the augmentative communication. They lead, develop and close conversations. The transcriptions selected for this article were not randomly selected and therefore it is not known just how representative the data is. However, the transcripts do illustrate behaviours which can be developed for

more positive outcomes and that scaffolding as a technique may foster a conversational style of discourse and fine tune communication partner behaviours.

It is proposed that communication partner training which includes transcription of discourse may enable the communication model to be visualized and may provide greater opportunities for movement towards transactional rather than linear models of communication. In doing so there may be greater opportunities for social influence, social identity, heightened self awareness, improved relationships, shared reality and more positive social inclusion outcomes. The use of transcription of discourse between AAC users and their speaking partners is proposed in research to evaluate pre and post communication partner training.

Summary

Transcription can be a very useful tool in analyzing interactions at a macro and micro level. The process can be time consuming but qualitative and quantitative data may be invaluable to communication partners and training programs for communication partners. As an illustration, the parents of the child in Transcript C were also more aware of what their daughter was trying to communicate with speech after they had viewed the recording of the session and seen the transcription. This information was then shared within the immediate family and followed up with the therapist receiving an audiotape of an oral conversation between the child and her grandmother where the child is clearly informing that she is having chicken and rice for dinner and that she is unimpressed with her hairdresser. The two hours it took to transcribe, analyze and share the transcript may have been a far more efficient, effective and cost effective way to develop the family's communication partner skills, provide the child with a voice and enhance family dynamics.

Liss, Spitzer, Caviness, and Adler (2002) reported that communication partners were more likely to report improvements in their ability to understand impaired speech when written transcripts were provided. As a visual reference transcription can enable communication partners to 'see' *their* communication, become more aware of what *they* did and responded to and provide baseline features for skill development. Opportunities for greater access to social inclusion may flow on from development of conversation rather than interrogation style interactions and social inclusion opportunities may be better suited to the skills and needs of the recipients. In discussion of the use of an intelligibility scale used by

Glasner and Yorkson (2005), Hustad, Caitlin, Kramper and Kramper (2011) suggest that a tool needs to be developed that "focuses explicitly on understanding what the strongest and weakest listeners do when presented with dysarthric[1] speech" p13. Transcription, notation of verbal and non verbal behavior and the use of scaffolded conversation can provide just this.

Conclusion

Discourse analysis may well be a useful tool for measuring and heightening our awareness of social change. It can also be a valuable tool in demonstrating links between social status, positions of influence and creating opportunities for greater social inclusion. Currently, the sands of our models of disability (medical, social and ICF) are still shifting depending on where we stand, our experiences and belief systems. Whilst we may endeavor to apply techniques such as interacting with presumed competence, allowing addition time for processing and planning, talking clearly and simply and using AAC, as communication partners there needs to be a mechanism we can apply to monitor and improve our own skills as communication partners. As able bodied, speaking communicators we may need to be more aware of the qualities we bring to a conversational dance and how we can contribute to the conversational dance being fluent, smooth, well timed and an enjoyable experience for all.

Finally, most evaluations and language testing looks at what the person with a disability can do with little attention to what the speaker brings to the situation and how this may affect outcomes. We need to explore more fully the dimension of what is wrong with us as communication partners rather than only apply the deficit model of 'what is wrong with the person with disability'. To this end, this paper discussed the use of written transcripts to enable interactions to be seen, quantified and resourced in communication partner training.

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[1] Dysarthria refers to a motor speech disorder, unrelated to cognitive impairment where speech intelligibility is reduced through difficulties with motor control of breath, voice, articulation and/or rhythm and timing.

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Biographical Notes

Jane Remington-Gurney is a PhD student and has worked as a speech language pathologist specialising in complex communication needs and augmentative-alternative communication. She has designed three ASQA accredited training programs and is currently in private practice.

Appendix 1

A: Radio Interview

This two minute transcript was taken from a Podcast recorded on ABC National Radio on August 2nd. The topic was dating and disability. There are three speakers, NM the radio interviewer, LD is the dating coach who has coached P a person with Down Syndrome. Coding for this discourse is provided in Appendix 1.

Time	Line no.	Speaker	Discourse	Scaffold level	Speech Act
04.44	1	NM	Tell us about that first meeting	Level 1	Iq
	2	P	Um I think the first meeting was good		R
	3		I really liked it		Cont.
	4		Um…well		Cont.
	5	NM	What were your first impressions of of your partner?	Level 3	Iq.
	6	P	Um..you mean LD?		Rq
	7	NM	<@No, No@>		F-
	9	P	<r Who? Who? r>		Iq
	10	NM	Of your chap!	Level1	Rinf
	11	P	Oh		Fn
	12	NM	<@David, David@>	Level 1	I inf
	13	P	Sorry		R.apol
	14	LD	You met him at a workshop and just became acquainted with him but then it was at another function that I held that you met him again and David spoke to me about liking you.	Level 3	I inf
	15	LD	What happened after that?	Level 4	Iq
	16		…3		
	17	NM	Well, well tell, us um about um that first meeting..	Level 3	Iq rep.line 1
	18		how did he capture your attention?	Level 3	Iq
	19		Tell us about David	Level 1	Idir
	20		…2 OK		R
	21		mm..		
	22	LD	Can you cut that off?(aside)		Iq?

	23	NM	No..		R
	24	LD	Just tell them about what sort of man David is	Level 3	I state
	25		And why you like him	Level 3	I state
	26		Why have you been going out for three years?	Level 3	Iq
	27	NM	Yes it's been three years		R inf
	28		..this is a long term relationship now isn't it	Level 2	Iqu
	29	P	Yes it is, yes		R
	30	NM	What differences has it made to your life?	Level 3	Iq
	31	P	Well there are changes in my life ever since I met David..		R
	32		Er... I can't remember those changes that I have so..		R cont..
	33	DP	Well what sorts of things you do with David	Level 3	Iq
05.58	34	NM	Yes that would be interesting to know.		Rcom

B: Doctor and Gerry, who has had a stroke

Line a6 is edited in on the training video

02.00 a.	Speaker	Discourse	Scaffold level	Speech Act
1	D	Can you er um um your age, how old are you?	3	Iq
2	G	[shrugs]		R
3	D	…9 Ok, um…3 just er just er so that I can get a feel for what you can understand, do you think you can understand everything I say?	2	Iq
4	G	[shrugs]		R
5	D	…10 How long now has it been now that you've had difficulty	3	Iq
6	D	Tell me, can you.. say the word 'dog'?	1	Iq
03.52				
6.00 b.		After communication partner training for the Doctor		
1	D	You live here?	3	Iq
2	G	Yeh		R
3	D	In Toronto?	2	Iq
4	G	Dododododo [points to his communication book]		R/I
5	D	in Toronto?		Iq
6	G	[reaches for his communication book]		R
7	D	You know this book better than I do- eh?		Icom
8	G	[Turns to correct page and points] dododododo0		R
9	D	But now, now [gestures 'here'] you live in Toronto	2	Iinf
10	G	Yeh		R
11	D	So you live in Toronto [writes it down]		F
12		…4 Do you live in North York?	2	Iq
13	G	[points to his left]		R
14	D	West?	2	Iq

15	G	Yeh		R
16	D	So you live west, …2 of Toronto?	2	Icom
17	G	Yah uah yah		R
18	D	Are we talking about Etobicoke?	2	Iq
19	G	Yah , yeh yah, yah, yah		R
20	D	That's where I'm from too		F
21	G	Yeh?		Iq
22	D	Yes		R
07.00				

C: Interaction

Therapist is guiding the child through the process of drawing a picture of her kindy using speech and AAC.

Time	**Line no**	**Speaker**	**Discourse**	**Scaffold level**	**Speech act**
Seg A. 00:00	1	T	Which one for 'no'?[offers choice of a yellow and a red crayon]	2	Iq
	2		…6 Put your right over to mummy if it's going to be the one on the right hand side	1	I dir
	3	E	… [moves head to right]		R
	4	T	Good girl		F+
	5		Nice work		F+
	6		Thank you		Ip
	7		OK		I
	8		You		I cont
	9		Uh		Cont
	10		…2 Ok		I
	11		We have one Emily and one Eva		Iinf
	12		Now you said…two people [presents a number choice board 1-10]		I inf
	13		So…how many more people do we need in that picture?	2	Iq
	14	E	[reaches with left hand to drawing of number 1]		R
	15	T	Oh good girl		F
	16		Go on then	1	Idir
	17		Try again	1	I dir
	18		Big push	1	I dir
	19	E	…2[push of left hand]		R
	20	T	Lovely looking		F+
	21		So clever		F+
	22		Well done		F+

	23		Um is this going to <u>be</u> …um Coby?	2	Iq
	24	E	…eye yeh		R
	25	T	[starts to draw Coby] I'll do brown for Coby if that's alright?		F
	26		…and he <u>also</u> has to push his hands down	1	Iinf
	27		And…he can't sit on his own can he…so I…		Iinf
	28	M	Maybe put his mummy behind him?	2	I q
	29	T	So I'll put mummy or a cushion behind him?	2	I q
	30	E	oo a		R
	31	M	Cushion		F
	32	T	Cushion		Iq
	33	T	There's a cushion		F
	34	T	Is he happy or sad?	2	Iq
	35	E	Ad!		R
	36	T	Sad?		Fq
	37		He does often looks sad doesn't he		I inf
	38	E	Hey		Unsure
	39	T	That's because he can't see		I inf
	40		He can't see very well so he's concentrating		I inf
	41		He's not sad because he's crying sad	1	I inf
	42	E	Yehhh		R
	43	M	Yeh he sometimes is		F
	44	T	Is he?	2	Iq
	45		Oh sorry!		I apol
	46	M	Yes he does cry.		R inf
2.00					
Seg B 3.10	1	T	So we have inside or out [taps one and two syllables on the tray in time with providing the choices]	3	I inf
	2		Two syllables or one?	2	Iq
	3		Inside [taps]or out [taps]		Rep
	4		So let that be the first choice		I inf
	5		Is the background going to be about inside or out?	2	Iq rep
	6		…16 [takes Eva's hands]		
	7	E	Hehehe		R
	8	T	Two hands went down		F inf
	9		I wasn't sure		I inf
	10		That's confusing		I inf
	11		Inside [models with two hand movement] out [models with hand movement]		I inf
	12		Ou		R
	13		OK push down really hard	1	F
	14		Yes, I can feel you pushing		F

	15	E	Ou		I rep
	16	T	Yes I heard you say it		R
	17		Out		F
	18		Good girl		F
	19		Right. There were two things to go 'out' weren't there?	2	I q
	20		There were the trees or city	2	Iq
	21		…4 trees, city [models again with hand movement the number of syllables in the word]		I inf
	22		…3 City is all the buildings		I inf
	23		Ahhh		R
	24		Trees – city [models movement again]		I inf
	25		Trees are like the trees around the bus area		I inf
	26	E	[movement to hand which modeled 'city']		R
	27	T	OK you are going for that one	2	Iq
	28	E	Yeh		R
	29	T	OK go on then.	1	F
	30	E	Ah		I
	31		That's a very weak one		R
	32		Get your breath	1	I dir
	33		[models taking a breath]		
	34		Have you chosen?	2	I q
	35	M	Trees or	2	I q
	36	E	Oh er		R
	37		Ohhhhh dear		R ext
	38	T	I can't draw anything else.		I inf
	39		Oh dear!. Mummy might be a much better drawer than me and she might be able to draw the busses and the people but I can't		I inf
	40	M	You need to choose trees or city	2	I q
	41	E	Si		R
	42	T	Sit, city		F
	43		Nice 'I' sound in that one		F+
	44		Well done		F+
	45		City, I will draw in the background		I inf
	46	M	Watching?	2	Iq
	47	E	Yeh		R
6.10					
Seg C					
7.15	1	T	Need to put some names on now to do your reading		I Inf
	2		OK. Ready?	2	Iq
	3	E	No		R

	4	T	No?		F-
	5		Well I'm ready!		I inf
	7		Who is this?	3	Iq
	8	E	…3 Ohhhhhhah		R
	9		Eh		R ext/I?
	10		Oh eh		R ext/I?
	11	T	Try again	1	I dir
	12	E	Norwa		R
	13	M	Nora?	2	F-
	14		No		I inf
	15	T	Its not Nora		I inf
	16		It sounded like Nora but its not Nora		I inf
	17		…2 Nora is usually helping you from behind		I inf
	18		Who was the teacher, the new teacher	3	Iq
	19		Oh er		R
	20		I'm listening for a vowel that I know you can do		F
	21	E	Eeeeeeeh		X
	22	M	It's the start of your name too		Iinf
	23	E	E		R
	24	T	E for Eva		F
8.50					