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Personal Narratives in Aphasia: Coherence in the Context of Use

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Abstract

Background: Discourse functionality is a primary goal of aphasia assessment and intervention. People who have aphasia often display a paradoxical functionality in their production of discourse, despite their aphasic impairment. A variety of linguistic and non-linguistic resources are orchestrated together to produce coherent discourse. One discourse genre, the *personal story*, is ubiquitous and fills important intrapersonal and interpersonal functions.

Aims: The primary objective is to provide a framework for the structure and function of personal stories, to guide future clinical discourse research toward development of practical clinical assessment of discourse functionality in people who have aphasia.

Main contribution: Characteristics of personal stories in their context of use are discussed for their contributions to overall discourse coherence. Examples of coherent and incoherent personal stories narrated by people who have aphasia illustrate interactions among coherence-building resources. The influence of group contexts and cultural contexts on coherence of personal stories is considered.

Conclusions: It is the interaction, and not the componential addition, of multiple resources that supports coherent production of personal stories in context. Qualitative frameworks need to be integrated with quantitative approaches as we develop reliable and valid means of functional discourse assessment. An understanding of the lives of people who have aphasia will be essential for defining the most meaningful and functional contexts for our discourse assessments.

Keywords

Aphasia; personal narratives; functional assessment; coherence

Functional communication is the metaphorical holy grail of rehabilitation outcomes in aphasia intervention. Elman and Bernstein-Ellis (1995) note that the term *functional* has been used traditionally by the field to highlight the importance of communicating via any means possible, as related to the use of compensatory strategies; and to emphasize the

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importance of choosing activities and tasks that are relevant to individual clients. Others have defined functional improvements to be those that generalize to settings other than the clinic (e.g., Garrett & Pimentel, 2007). Whether one takes an impairment-based approach to treatment, a psychosocial approach to treatment, or some combination of both, the primary goal of assessment is to characterize a client's (capacity for) communicative competence, and the ultimate therapeutic goal for the client with aphasia is functional communication.

One result of this focus on functionality has been an emphasis on the ecological validity of our assessment and treatment contexts. Tasks and activities are specifically chosen to represent *daily contexts* of communication that are *naturalistic* or *realistic* (Elman & Bernstein-Ellis, 1995), such as script training (Cherney, Halper, Holland & Cole, 2008). Driven by similar motivations to assess in naturalistic contexts, many clinical researchers have analyzed discourse under the premise that discourse is the manifestation of language in its very context of use (e.g., Cherney, Shadden & Coelho, 1998).

While the goal in discourse aphasiology has been to gather samples representative of *functional* communication, Armstrong (2000) comments that many analyses of discourse have focused on *structural* microlinguistic phenomena, such as lexical and syntactic phenomena, un-interpreted for their influence on overall discourse function. Based on clinical observations, one might surmise that the influence of microstructure on discourse functionality may be limited. Audrey Holland has highlighted the ability of aphasic persons to "communicate better than they talk" (1977, p. 173) and has commented that there is little relationship between severity of language impairment and the ability to cope and function in daily life (Holland, 2010). As an example, in one aphasia group familiar to the first author, a group member with limited verbal output and no augmentative device told humorous life stories that were so funny that group members laughed to the point of tears. Likewise, Sacks (2010) describes a woman with severe aphasia who resumed an active and communicative social life, despite little change in her underlying impairment.

To help account for this enigmatic functionality, our clinical discourse research should address the variety of linguistic/paralinguistic resources (e.g., lexicon, morpho-syntax, prosody) and non-linguistic resources (e.g., shared world knowledge of culturally predictable patterns of discourse structure; knowledge of the cultural and interpersonal context) as they are *orchestrated together* by aphasic communicators to communicate coherently (Ulatowska & Olness, 2007). It is also important to consider the contexts in which these resources and strategies are successfully tapped, as tools for social meaning-making (Armstrong & Ferguson, 2010). Finally, whatever the means of sampling and analyzing discourse, clinical researchers should scrutinize the ecological validity of their research designs by explicitly addressing the way in which their sampling and analysis reflects functional use of discourse in naturalistic contexts.

At the same time, a complete picture of communicative competence should also outline limitations or boundaries on this competence, perhaps based in part on the underlying impairment, and the contexts in which these boundaries are manifested. For example, in a recent court case, a woman with aphasia who had been assaulted was capable of telling her family, her care team, and the police what happened. However, in the context of a

legal competency hearing in which she was not allowed rightful accommodations, she was initially deemed incompetent to testify in her case (National Aphasia Association and W. Murphy, personal communication). Likewise, there is evidence to suggest that when speakers with aphasia are telling personal narratives in monologue, the normally preserved ability to make a “point” with a personal story may be compromised if the aphasic impairment is too severe (Olness, Matteson, & Stewart, 2010).

The current paper will attempt to provide a partial framework to guide future discourse research, geared toward development of practical clinical approaches to assessment of *communicative competence* or *functionality* of persons with aphasia. In the past, one of the roadblocks to analysis of discourse in the clinic has been the perception that sampling and analysis need to be labor intensive. However, the roadblock of transcription may be circumvented if, as a field, we can build a solid, shared understanding of the primary functions of personal narratives and how these functions are filled, and if on-line criterion-referenced and behavioral observations of spontaneous storytelling can be designed based on this understanding. Ultimately, clinically efficient, feasible, and valid screening and assessment in the form of transcription-less discourse-based analysis may be possible, supported by future studies of the degree to which qualitative approaches are reliable, sensitive to change over time (cf. Armstrong, 1997), and externally valid relative to quantitative, transcription-based discourse measures (cf. Armstrong, Brady, Mackenzie, & Norrie, 2007).

Discussion will focus specifically on one ubiquitous discourse type, namely *personal narrative* or *story*. A focus on one particular discourse genre is consistent with the suggestion by Armstrong (2000) that mixing samples from different genres may be problematic for analysis and interpretation.

In a fashion analogous to American models of evidence-based practice (Dollaghan, 2007), these clinical assessment suggestions will be derived from more than one source: basic research and discourse models; clinical expertise; insights of clients with aphasia and their family, friends, and peers; and data-based examples from research and the clinic. The authors will not attempt to be comprehensive in coverage of the clinical discourse literature as a whole; rather the goal is to be coherent in discussion of the frameworks and evidence that are relevant for assessing aphasic clients’ functional use of personal narratives in particular.

Background

Scope of discussion

Theoretical and clinical discussion in the current paper will concentrate on production of one sub-type of the *narrative* genre of discourse, namely *personal stories*, which will also be interchangeably referenced in the current paper as *personal narratives*. Consistent with the focus on story production, discussion in the current paper will place relatively less emphasis on the following: production of narratives that are not personal narratives, such as narrative productions in response to pictures or prompts for pre-set story retells; comprehension of narratives; and production and comprehension of other discourse genres such as procedural

and expository discourse (Longacre, 1996). These topics will be considered only to the degree that they may shed light on the targeted discussion of the personal story production.

Motivations for assessment of personal narratives

Narrative research, direct observations and self-reflection attest to the ubiquity of personal stories in daily contexts of communication. Labov (1997) comments that “narratives are privileged forms of discourse that play a central role in almost every conversation” (p. 396). Narratives are so pervasive in the daily life of *homo narrans* that researchers have used conversational telling of personal narratives to explore cultural values and assumptions (e.g., Johnstone, 1990; Polanyi, 1989) and to create historical cultural archives (StoryCorps, 2010). Moreover, systematic rules for incorporation of narratives into conversation have been extensively described (Ervin-Tripp & Küntay, 1996; Norrick, 2000; Schegloff 1982). One would be hard pressed to encounter a typical day in which personal stories are not told or heard, whether these are short stories of a few sentences such as an account of a near collision on the highway that day, or longer stories of a salient turning point in one’s life, such as the story of one’s stroke.

Even more importantly, personal stories are *multi-functional*. Narrative proper fills two basic functions: referential and evaluative (cf. Jakobson, 1990). Polanyi (1989) states that a narrator’s two primary tasks are to give enough detail to events to state the events clearly (referential function) and to highlight the important information in the narrative to add salience to it (evaluative function). In its referential function, narrative *refers* to the *who, what, when, where, and what happened* of the narrated event (Labov, 1972). In its evaluative function, narrative *evaluates* the speaker’s attitude and opinions about the event, i.e., the *so what* of the narrated event or why the story was told in the first place (Labov, 1972). Of these two functions, the evaluative function may be the key function associated with storytelling. Polanyi (1989) comments that the primary reason that a story is told is not to convey the sequence of events proper, but rather “to make a point, to transmit a message—often some sort of moral evaluation or implied critical judgment—about the world the teller shares with other people” (p. 16). Research evidence suggests that the narrative referential function is particularly vulnerable in narrators who have aphasia (Ulatowska, Allard, & Chapman, 1990). However, the primary evaluative function may be spared overall, unless the aphasic impairment and associated referential problems are relatively severe (Armstrong & Ulatowska, 2007; Olness & Englebretson, 2011; Olness, Matteson, & Stewart, 2010).

Based largely on their evaluative potential, narratives also fill intrapersonal and interpersonal functions. At the intrapersonal level, tellings and re-tellings of personal stories allow the narrator to “re-live, re-evaluate and reconstruct remembered experience” (Norrick, 2000, p. 2). Across a lifetime, such *storying* and *re-storying* through life review and reminiscence is part of *biographical aging*, associated with re-interpretation of life events as they relate to one’s life as a whole, and ultimately manifesting one’s *ordinary wisdom* (Kenyon, 2006; Randall & Kenyon, 2001). At the interpersonal level, shared stories also provide a way to present oneself and one’s identity to others, and to bond through shared experience and shared culture (e.g. Johnstone, 1990).

Notably, the need to accomplish the intrapersonal and interpersonal functions associated with narratives remains, whether or not the narrator has aphasia. To the degree that aphasia affects the ability to tell personal stories, it may also affect the ability to accomplish these narrative functions. The sharing of illness narratives in particular is a way to cope with the impairment and its impact on one's identity and life goals (Frank, 1997; Kleinman, 1988). As Frank (1997) notes, "(s)erious illness is a loss of the 'destination and map' that had previously guided the ill person's life: ill people have to learn 'to think differently.' They learn by hearing themselves tell their stories, absorbing others' reactions, and experiencing their stories being shared" (p.1).

It is a bitter irony that people who have aphasia have diminished ability to tell their stories, at the very time when they need to tell them. Shadden (2005) speaks of the "theft" of one's identity that is associated with the onset of aphasia. Following stroke, the importance of exchange of personal stories in the setting of an aphasia group cannot be underestimated as a way to assist group members in "re-creating their own identities and future selves" (Bernstein-Ellis & Elman, 2007, p. 76). As Holland (2007) notes, the opportunity for clients with aphasia to exchange stories of their strokes and stroke aftermath, in particular, has healing power. Indeed it is selective self disclosure of one's attitudes and feelings, such as expressed through personal narratives (Armstrong & Ulatowska, 2007), that is hypothesized to be the key factor for people in crisis to reap benefits from group membership (Ewing 2007). A promising basis for future research on the functions of shared personal stories for people with aphasia, such as stories of stroke, has emerged with the advent of shared multimedia databases of personal stories (AphasiaBank, 2011; Aphasia Corner Blog, 2011; StoryCorps, 2010). These have also created venues outside of aphasia group settings for people to share their personal stories of life with aphasia.

Discourse coherence as a basis for communicative competence

For a person with aphasia to be communicatively competent and functional in their expression of discourse, the discourse needs to be coherent. This relationship between communicative competence and discourse coherence is the working assumption under which the current paper operates. A discourse is defined as coherent when it "hangs together" or makes sense as a whole, in its context of use (Ulatowska & Olness, 2004).

The construct of coherence as defined here is related to the notion of *global coherence* as defined by Glosser (1993), which is the overall semantic unity of themes and topics in a discourse. However, the two are different in how they are operationalized. Global coherence is operationalized by Glosser through a series of ratings of the contributions of the semantic content of *each individual sentence within the text* to the semantic unity of the discourse as a whole. In contrast, coherence as defined in the current paper can be operationalized only through a single rating of the semantic unity of the whole discourse-situated-in-context, i.e., the degree to which this unit, as a whole, hangs together or makes sense.

The current paper further assumes that coherence is achieved through the integration of multiple semantic resources, e.g., information expressed in the text through a variety of linguistic and paralinguistic tools; knowledge of the world and the predictable ways in which discourse is structured; and the relevant characteristics of the context in which the

discourse is being produced. Correspondingly, linguistic competence does not necessarily predict communicative competence. Rather it is how well speakers with aphasia integrate the meanings created by the linguistic and paralinguistic resources they have at hand, with their understanding of the world and the way discourse is structured in their culture, while remaining sensitive to the relevant features of the context in which they are communicating, to achieve targeted functions (cf. Saville-Troike, 2003). These functions include both the referential function of narratives and the evaluative function, which entail coherence of both referential and evaluative content. In sum, language is one set of meaning-making resources (Armstrong & Ferguson, 2010), that combines with other resources to achieve communicative functions through discourse.

The following section discusses some of the key resources that contribute to coherent production of narrative discourse. This will be followed by a qualitative assessment of both coherent and incoherent personal stories of speakers with aphasia, to illustrate the ways in which various linguistic forms and predictable discourse structures function together to create coherence, with the assumption use of the forms and structures is driven by their function. Following Saville-Troike (2003), this assumption of “(the) primacy of function over form in analysis is not to deny or neglect the formal structures of communication; rather it is to require integration of function and form in analysis and description” (p. 14).

The Predictable Nature of Narrative

Narratives as a discourse genre, and personal stories as a subtype of that genre, have certain prototypical characteristics. This culturally shared knowledge about the nature of narratives contributes to the overall coherence of personal stories by bolstering both coherence of referential content and coherence of evaluative content. To the degree that these culturally shared characteristics of narrative are effectively combined in a personal story, the story will meet audience expectations for the means by which stories fill their referential and evaluative functions, thus increasing the story’s coherence. Special note should be made that not all of these characteristics make high demands on linguistic competence, which may assist storytellers with aphasia to produce coherent stories despite their linguistic impairment. It is this very possibility of narrative coherence in the face of linguistic impairment that is explored in the current work.

Narrative superstructure

An overarching pattern in narratives which contributes to overall coherence of personal stories is the narrative superstructure (van Dijk & Kintsch, 1983), also referenced as the story schema (Mandler, 1984). Key components of the superstructure, in rough sequential order, are the orientation or setting, initiating event, complicating action, result or resolution, and coda (Berman, 1997; Labov, 1972). In general terms, one may refer to the “beginning, middle, and end” of a story. The canonical ordering of superstructure is relatively preserved in aphasia, although exceptions may occur in speakers with relatively more severe aphasia. Overall, this predictable pattern enhances the overall coherence of personal stories told by aphasic narrators. Referential and evaluative content are conveyed in and through narrative superstructure in predictable ways which are detailed below.

Narrative characteristics that support the referential function

Narratives make reference to person, action, time, and location. The referential function, i.e., expression of the *who*, *what*, *when*, *where*, and *what happened* (Labov, 1972), may be particularly vulnerable in narrators who have aphasia (Ulatowska et al., 1990); overall clarity of reference may be reduced largely as a consequence of the anomia which defines the very nature of the disorder. The verb in particular has been recognized to play an important role at the level of the sentence, and studies suggest that the verb, which references activity, may be compromised at the word and sentence levels among individuals who have aphasia (e.g., Bastiaanse & Zonneveld, 1998; Edwards & Bastiaanse, 1998).

Reference has been explored in aphasia largely through the construct of cohesion. Discourse cohesion is achieved through the use of “the set of possibilities that exist *in the language* for making text hang together [as a larger unit]” (Halliday & Hasan, 1976, p. 18, emphasis added, to differentiate cohesion from the semantic notion of coherence). The notion of cohesion encompasses not only lexical reference, but also conjunction and ellipsis, which together create systems of anaphoric and cataphoric linkages which coalesce to make text cohesive. Problems with narrative cohesion in aphasia may well be associated with overall reductions in narrative coherence (Armstrong, 2000).

It is the contention of the current paper that problems with the referential function and associated cohesion pose the primary threat to coherence of personal narratives for speakers with aphasia, and it is only through the use of other coherence-building resources that narrators with aphasia are so often able to produce coherent personal stories. For example, both Ulatowska et al. (1990) and Glosser and Deser (1990) suggest that discourse coherence is possible despite significant difficulties at the lexical and sentential levels. Christiansen (1995) and Huber (1990) highlight contrasting examples in which difficulties with lower linguistic levels ultimately do seem to impact discourse coherence. The challenge for researchers and clinicians is to tease apart the factors that play a role in such inconsistencies, in a way that can be applied to clinical practice.

Characteristics of personal stories associated with the referential function are: focus on agents and their activities, a linear temporal-causal organization of narrative events set in past time, and inclusion of key background information.

Focus on agents and their activities.—Reference to specific agents and their activities is a key characteristic of personal narratives, as contrasted with other genres of discourse such as procedural or expository discourse (Longacre, 1996). What has been relatively unexplored in the clinical discourse literature, to our knowledge, are the relative effects of poor reference to key story agents and their activities, versus ancillary story agents and their activities, since not all agents in a story can be presumed to carry equal cohesive weight.

Linear temporal-causal organization.—Narratives are structured with a temporal-causal “backbone” of narrative clauses or utterances, termed the *narrative event line*, that corresponds with the order of happenings in the narrated event (Berman, 1997; Labov, 1972; Labov & Waletzky, 1967; Longacre, 1996), e.g., *This boy punched me; And I punched him; And the teacher came in; And (she) stopped the fight.* (Labov, 1972, p. 360). As noted by

Polanyi (1989), a narrative “models the passage of time in some world by building up a time line demarcated by discrete moments at which instantaneous occurrences are reported to take place” (p. 16). Use of this predictable ordering enhances the coherence of a personal narrative. The narrative event line typically starts with the initiating event of the narrative superstructure, and extends through the complicating action and resolution (Berman, 1997).

The temporal-referential ability to sequence one’s narrative utterances to represent the order of the narrated events *is not dependent on any lexical or syntactic abilities* per se; temporal-causal markers like *then* or *so* need not be expressed, and utterances need only be put in their correct sequence. For this reason, the presence of aphasia does not necessarily affect one’s ability to use temporal-causal order in personal narratives. Thus, temporal-causal ordering of utterances may be a key contributor to the coherence of stories told by people with aphasia, even though there may be a potential shortening of the temporal-causal event line in aphasia (Ulatowska, Olness, & Williams, 2004), especially in cases of more severe aphasia (Olness, 2006).

Utterances on the narrative event line often include distinctive verb content, verb tense-aspect morphology, and adverbials (e.g., *all of a sudden*) that redundantly highlight the punctiliar nature of the event sequence (Olness, 2006). However, it is not clear that verbs and verb morphology are absolutely necessary to represent the event sequence, so this factor may not affect the ability of aphasic narrators to establish a narrative event line. Explicit linguistic marking is needed only when the story diverges from this order, as in a flashback. On the other hand, a different combination of aspect and modality markings are found in those utterances which are off the event line, i.e., those containing background and evaluative information (Olness, 2006). Thus, the verb system may be important for differentiating narrative information which is on the event line from information which is off the event line.

Events set in past time.—Another key referential characteristic of personal stories, related to temporal reference in particular, is that personal stories provide an account of events that occurred in the past (Longacre, 1996). Thus, past tense markings will be found on verbs throughout the narrative. However, even when agrammatism or paragrammatism affect the use of past tense morphology in the personal narrative of a speaker with aphasia, temporal reference is unlikely to be negatively affected. The reason is that the events represented in personal narratives are presumed *a priori* to have occurred in the past, so the use of past tense morphology is a redundant marker. In conversation, the shift back to the “here and now” typically occurs only after the story is complete, with a shift to present tense in the story’s coda (Labov, 1972), e.g., *That’s it*.

On the other hand, even though stories are set in the past tense, differential use of non-past tense and a variety in aspect markings may appear in the use of *direct speech*, i.e., direct quotes of narrative characters (Ulatowska & Olness, 2001; Ulatowska, Olness, Wertz, & Hill, 2002). For example, present tense and perfective aspect of African American Vernacular English (AAVE) are used in a quote within a stroke story: “*It kinda look (PRES) like she done (PERF) had a stroke*” (Ulatowska, 2010, p. 293). Thus, some facility with verbs and verb morphology may contribute to overall coherence.

Inclusion of background information.—Production of personal stories assumes the inclusion of background Informative or descriptive elements which “take into account what the addressee might want to know or needs to know” (Berman, 1997, p. 241). For example, *We kids were at school one day. I was ten at the time and this other kid was thirteen* might be given as background information in the story of an attack by a school bully. This background information is important for making a personal story coherent. It is typically concentrated in the setting portion of the superstructure, but can be found in other structural components of the narrative as well (Berman, 1997).

Certainly, the reference problems associated with aphasia may impact the clarity of this background information, and thus impact the overall coherence of the story. On the other hand, much background information is culturally shared and predictable, e.g., script knowledge (Schank & Abelson, 1977), which reduces the demands on the referential system. So, for example, once the narrator has established that the setting of the story is a school, other referential details about the usual school routine can be omitted. Shared cultural knowledge may be one of the factors which facilitate coherence in the personal stories of speakers with aphasia, since aphasia does not directly affect the ability to decide which background information needs to be expressed and which shared knowledge can be left unstated.

Narrative characteristics that support the evaluative function

As noted earlier in the current review, the primary motivation for telling a story may not be to recount the narrative event per se, but rather to express the narrator’s attitudes or opinions about the event and to make a point (Labov, 1972; Polanyi, 1989). This expression of the narrator’s attitudes and opinions creates interpersonal meaning (Armstrong & Ferguson, 2010). The narrator expresses his/her attitudes and opinions through narrative by (1) selecting to tell only those stories deemed to be significant or “worth telling”; and (2) highlighting or adding prominence to select information within the narrative to make one’s point.

Selection of a story worth telling.—One of the evaluative expectations in storytelling is that the narrated incident be “tellable” (Ochs & Capps, 2001). In other words, the incident should be unusual, unexpected, unique, or remarkable (Labov & Waletzky, 1967; van Dijk, 1976). Correspondingly, personal stories will typically reflect “a struggle or polarization of some sort” (Longacre, 1996, p. 10). The very selection of which story to tell is a primary means of filling the evaluative function with one’s narrative. For example, a severely apraxic member of an aphasia group once engaged the group with a humorous story about encountering a naked woman at a car wash. Such a story would not have been tellable, and thus less coherent, if the event was routine, e.g., if he had recounted that he simply went to the car wash, saw no one there, and came home.

Selection of a story worth telling is not inherently demanding on the linguistic system, so presence of aphasia does not necessarily affect one’s ability to select a tellable story. In fact, one of the characteristics of personal narratives of high quality is that they meet the criterion of tellability (Ulatowska et al. 2004). Tellability is consensually defined, relative

to the norms of the discourse community (Bruner, 1990; van Dijk, 1976), and listeners' expectations for a tellable event increase the overall coherence of the story when the unusual elements are narrated. The evaluative content of the story can be further predicted by the on-going topic of conversation in which it is embedded (Norrick, 2000). Personal stories that are not tellable relative to cultural expectations or the context of the conversation are often met with silence.

Clinical researchers, as well as clinicians, should use ethnographic methods to sample stories that are tellable, i.e., salient to the participants and the culture in which they interact. Otherwise, it will be difficult to assess the evaluative function of personal stories in clinical settings. As a way of establishing the ecological validity of our samples, participants or clients with aphasia and their friends and family may be surveyed regarding frequency of use of personal narratives prior to stroke, favorite narrative topics, and typical audiences and co-narrators for their stories. A survey of pastimes or significant life milestones or turning points may be included, since favorite stories may be based on favorite and memorable events (Olness & Pelland, 2007). An ethnographic approach to assessing narrative functionality may also ask the narrator with aphasia and/or family to document past events or occurrences which are remembered and talked about by the participant during a given week.

Linde (1997) describes the times, places, artifacts, and regular practices that are occasions for narrative remembering, such as anniversaries, museums, photos, and holidays. Culturally shared experiences, such as the Kennedy assassination or "9-11" have also been frequently used to prompt personal narratives. One's living location and co-habitants may also predict salient narrative topics, e.g., weather stories may be common among country dwellers, and co-habitants may predict who the main characters in personal stories would be (Olness & Pelland, 2007).

Finally, certain story themes are universally salient. For example, it has been suggested that there is a set of emotions that are found in some form in every known culture: happiness, anger, sadness, fear and disgust (Stein, Hernandez, & Trabasso, 2008). These emotive themes may be salient prompts for personal stories. One effective way to prompt for a story is to ask *Do you remember a time when you were (e.g., frightened/disgusted/happy)*, wait for an affirmation, then ask *What happened?* (cf. Labov, 1972). Another way to ask is to say, *I don't know you well, but I've been told that (e.g. you had a frightening flight to Lubbock one time)*. Finally, one ecological way to elicit a personal narrative is to begin by telling a brief but related narrative of one's own, e.g., *I found a mouse in my house once. Have you ever had problems with pests? Yes? What happened?*

Highlighting narrative content to make a point.—The evaluative function of narrative is also filled by a process termed *narrative evaluation*. Selected information is highlighted or assigned prominence in a story to make points, and thus express the narrator's attitudes and opinions about the event. For example, in a story about a school bully, the narrator may comment, *I was angry* and *The teacher's arrival was perfectly timed* as a way of implying that the narrator's anger would have resulted in a worse fate for the bully if the teacher had not arrived when she did.

Evaluative content as a whole adds to the overall coherence of personal narrative (Olness & Englebretson, 2011), and allows the narrator to express evaluative themes consistent with the topic of the narrative, such as fear, uncertainty, or restitution in a narrative of one's stroke (Armstrong & Ulatowska, 2007). One way to express evaluative content is through a separate comment apart from the event line (e.g., *I was angry* or *Her arrival was perfectly timed*). Another way is to embed evaluation within utterances (Labov, 1972) either on the event line (e.g., *This boy punched me and punched me, really HARD* or *The teacher rushed in*), or off the main event line (e.g., *I was so angry....I was as angry as a hornet*).

It is important to note that the number and range of evaluative devices is extensive, and drawn from multiple levels of language structure, in addition to paralinguistic devices. (See Olness et al., 2010, for a summary of several evaluative devices, as well as Labov, 1972 for the seminal work on this topic.) More important, however, is the fact that many evaluative devices are relatively non-complex linguistically, so even speakers with relatively severe aphasia have evaluative device options. Indeed, there is evidence to suggest that the types of evaluation used, their distribution in the narrative structure, and the semantic coherence of all evaluative content as a whole may be relatively preserved in narratives of speakers with aphasia, as compared to narratives of speakers without aphasia (Olness et al., 2010; Olness & Englebretson, 2011). Thus, evaluation appears to be a key contributor to the overall coherence of personal stories produced by speakers with aphasia.

Some common evaluative devices that are readily used by speakers with and without aphasia include separate commentary (e.g., *This is for real!*); repetition (e.g. *Uh woman uh um rude. Rude.*); direct speech (e.g., *I go, "Say man! John sit down!"*); negation (e.g., *I couldn't use none of it*); and use of extra-high pitch on selected words (e.g., *It SEEM like it TOOK FOREVER to get that plane stopped*) (Olness et al., 2010). Note that none of these particular devices requires the use of complex language. For example, Berko-Gleason et al. (1980) comment that the relatively simple syntactic structure of direct speech may be associated with its high frequency of use by narrators with Broca's aphasia. Likewise, repetition of what one has already said or use of increased pitch does not involve any corresponding increase in linguistic complexity.

Evaluation may be found throughout the narrative superstructure, with the exception of the initiating event (Berman, 1997). For both speakers with and without aphasia, the use of evaluative devices tends to concentrate in the portions of narratives that contain the most remarkable or unusual information requiring evaluation, such as the complicating action of the story or the coda (Olness et al., 2010). For example, one narrator with moderately severe aphasia used repetition and extra modifiers to emphasize the extent of her husband's drinking problem, in the complicating action of her divorce story: *Seven days. Seven days straight* (Olness et al., 2010).

However, this ability to selectively highlight information may be diminished in relatively severe aphasia, when evaluative devices are pervasively distributed throughout the narrative (Olness et al., 2010). Evaluative devices are evaluative only when their frequency of use deviates from the baseline frequency of use (Polanyi, 1989). For example, when over-use of repetition or direct speech becomes the textual norm, these devices cease to function

evaluatively. There is evidence to suggest that narratives of some speakers with more severe aphasia may overuse evaluative devices at the expense of clear referential language (Olness et al., 2010), which would in turn diminish the overall coherence of their narratives.

Coherence-building resources are interactive

The predictable narrative characteristics described above have been considered individually for their contributions to the referential and evaluative functions that together build overall narrative coherence. However, it should be emphasized that it is not the individual or additive effects of these characteristics that determine overall coherence, but rather their *combination and interaction* that builds coherent personal narratives. For example, seemingly poor personal reference in the text itself may not render a narrative incoherent if the narrator and audience share sufficient cultural background or experiences and if at least the most critical agents are clearly referenced. Likewise, even when reference is unclear, a narrator may be able to coherently evaluate his/her opinion that the event was e.g., “fearful” or “happy”, which would be sufficiently coherent for a context requiring primarily evaluative coherence (e.g. an intimate interpersonal context) as opposed to a context requiring high referential coherence (e.g. a court of law). Moreover, any given form may contribute to coherence in more than one way. For example, one narrative study of reported speech, a form which can act as an evaluative device, found that many narrators with and without aphasia also used the form as an element of the main event line, and that such “dual-use” was concentrated in the complicating action (a component of narrative structure) (Ulatowska, Reyes, Santos, and Worle, 2011). Thus, it is the *interaction* of coherence-building resources, and not the sum of their individual effects, that should be the primary consideration in both research and clinical accounts of the coherence of personal stories.

Assessing the Coherence of Personal Stories Produced by Narrators with Aphasia

We now turn to actual examples of personal narratives produced by speakers with aphasia, selected for their ability to illustrate how multi-dimensional coherence-building resources interact to support overall narrative coherence. These narratives and narrative excerpts were selected from narrative data collections of the authors, and those that can be found in publications are cited as such. Both coherent and incoherent personal stories and story excerpts told by individuals with aphasia are included, and each example is qualitatively assessed and discussed for the resource combinations that may contribute, or be lacking, toward support of overall coherence. From a clinical standpoint, this would be analogous to first conducting a valid observational screening of overall discourse coherence (coherent vs. incoherent), followed by identification of the potential combinations of factors that contribute to the narrative’s coherence, or lack thereof, which might then lead to future “deep-testing.” These examples are not intended to be comprehensive in their coverage of the full range of aphasia types, nor are they designed to represent all possible communicative contexts; descriptions of narrator characteristics and communicative contexts are detailed only to the degree that they inform the qualitative, illustrative assessment of interactions among coherence-building resources. Likewise, only those coherence-building resources that

are the most relevant for each narrative example will be highlighted, rather than considering all resources for each narrative. Again, this approach is consistent with the goal of the current paper which is to frame and illustrate issues relevant for the future development of on-line clinical analyses of narrative coherence and functionality.

Nature of the samples

Most of the following stories and story extracts were produced by middle-aged, English-speaking Caucasian and African-American adults in the context of semi-structured interviews, following a request for a story on a topic specified by a (typically) race-matched interviewer, who in turn acted as an interested listener (Labov, 1972). Typically, the request was either to tell a personal story of a frightening experience, or to tell the story of one's stroke, often near the end of a longer discourse protocol during which interviewer and narrator had become familiar to each other. Responses were audio recorded and orthographically transcribed. Portions of the transcriptions enclosed in square brackets provide clarifications of content by the transcriptionist, or when marked "Interviewer," provide verbalizations of the Interviewer.

This approach does not necessarily account for how stories are embedded in conversation (Norrick, 2000), but it does include illustrations of how conversations are embedded in stories, in the form of direct speech (Hengst, Frame, Neuman-Stritzel, & Gannaway, 2005; Ulatowska et al, 2011; Ulatowska & Olness, 2003). The emotive and personal nature of these stories falls into the category of personally meaningful and complex functional communication that is targeted by current models of rehabilitation and rehabilitation outcomes. This sampling approach also represents those conversational contexts in which the listener cedes the floor to extend the speakers conversational turn for the purpose of telling a personal narrative (e.g., Schegloff, 1982), including aphasia group settings in which group members take turns relating personal narratives.

Example Set One: Multiple resources for building a coherent narrative

Multiple resources can be used by narrators with aphasia to produce coherent personal stories, even in the presence of noticeable aphasic impairment. Consider, for example, the following personal narrative of a stroke told by a middle-aged African-American man with moderate non-fluent aphasia when he was asked to relate a frightening experience (Olness & Englebretson, 2011).

Man it's stroke. It's comin'. Yes okay. After it's seure [seizure]. "Uh:!" [sound of having a seizure] Oh Lord, oh Lord. Talking. And now, "Woo:!" [ambulance sound] An(d) then, "Why?" "I can't talking." It's and for, for long, not long time. Man it's angry! It angry boy. Oh. But it's okay. It's praise God.

In a top-down fashion, the first step in assessment would be to rate the overall story as either coherent or incoherent. Despite his aphasia, this narrator's story is relatively coherent overall, i.e., the story makes sense as a whole. Next, the potential resources that contribute to coherence are considered. The topic (stroke) is clearly established at the beginning and relevant to the request for a frightening experience. With respect to the referential function, there is also a tight adherence to temporal-causal order and superstructure, which

is also explicitly marked (*and now, and then*) and includes an evaluative coda (*But it's okay. It's praise God*). Past tense, while not explicitly marked, is assumed in narratives, so its absence does not affect coherence. Multiple factors contribute to the clear reference to agents and their activities: the small number of agents (the narrator, and perhaps the “talking” people who decided to call an ambulance); shared cultural knowledge of scripts in emergency situations (e.g., ambulances) which precludes the need for elaborate setting/background and permits use of onomatopoeia to represent the ambulance. Onomatopoeia also clarifies the poor lexical reference to the seizure. Reference to location is not stated, but is not background important to the story. Evaluation using extra comments and direct speech effectively highlights the speaker's opinions and attitude regarding stroke event and its aftermath (*Oh Lord, oh Lord, Why?, I can't talking*; repeated mention of anger; and evaluative resolution expressed in the coda (*it's okay; it's praise God*). The narrator effectively uses changes in voice pitch and quality to mark when he is using direct speech and onomatopoeia. In summary, multiple resources converge to allow both referential and evaluative functions to be filled in a coherent fashion, despite an obvious aphasic impairment.

The next passage, told by a young man with a moderate non-fluent aphasia (Ulatowska, Freedman-Stern, Doyel, Macaluso-Haynes, & North, 1983) was the passage that first prompted the second author to explore how discourse coherence can be achieved even in the presence of aphasic impairment.

Going to Possum Kingdom [a regional park]. Almost there. Other guy drunk. Head on collision. And Mike S., he was driving. And me passenger. Head on collision. And would've died. Some guy stopped along the road. And put a snorkel in my throat. And would've died. And other guy went insane. And that's it.

Coherence is supported by a strong temporal-causal event line and superstructure, including a coda (*that's it*). The background information is relevant and shared knowledge about the park precluded the need to mention that driving was involved to get there. Shared world knowledge of road collisions, as well as unique reference to each character (*other guy, Mike S., some guy, self*), allows multiple male characters to be clearly referenced. *Snorkel* can be interpreted based on world knowledge of emergency medicine. Evaluative repetition of the comment, *would've died*, fills the evaluative function.

Sometimes, lexical content can make a discourse coherent, despite impairments associated with aphasia. The following example (Freedman-Stern, Ulatowska, Baker, & DeLacoste, 1984) is an evaluative coda from a diary entry written by a man with aphasia, which illustrates this coherence-building pattern:

I know I was gonna be sick some day. I know it. Maybe it was for dreams I did have... Anyway I did do cripple. Yea I did sick, it was my head. Ha. I guess I had it for sixty year but I had some fun... It is to laugh. I have I am still for fun... It is to laugh. I have I am still for fun bucause (sic) I am still alive...

In this passage, deficits (*sick, cripple*) are contrasted with positive aspects of life (*fun, laugh, alive*), many of which are repeated evaluatively. This coda coherently fills its evaluative

function. Because the primary function of codas is to provide evaluation and close the narrative, the seemingly poor referential content has minimal negative functional impact.

Example Set Two: Poor referential function with good evaluative function

This example set provides illustrations of how, in a single narrative of a single narrator with aphasia, referential function may be poor while evaluative function may remain intact. Following is an extract of an incoherent background/setting from a personal narrative of domestic abuse told by a middle-aged Caucasian woman with moderate-severe aphasia (participant number “A-APH35” in Olness et al., 2010).

Tommy uh brother me. Now uh. Now uh brother, um brother uh uh side, uh side. Brother. Uh house bad. Now uh daddy um. Now. Daddy uh uh done gone. Now uh I-. Oh um. What his name? Uh Debbie. Uh uh crooked. Now. Now um uh ring, uh girl way off. No her uh seches [: Texas]. . . . Uh uh Texas. Now. Uh. Uh woma(n) uh um rude. Rude. Uh mind, uh mind lost. Uh daddy...

Remember that a key function of the structural background/setting is referential. Despite the minimal use of verbs, progression in the event line is marked (*Now*), which supports referential coherence on the surface. However, a key contributor to referential incoherence is the poor clarity of personal reference due to sheer numbers of characters and poor verb reference to their activities, as well as the reduced morpho-syntax which restricts expression of characters’ relationships.

In the excerpted closure to the same story which follows, personal reference is still poor, and even though temporal reference is aided by continued adherence to temporal-causal order, the referential function is poor overall. However, the evaluative function is relatively maintained: the severity of the abuse is coherently evaluated through the use of extensive repetition, onomatopoeia, and direct speech expressing a friend’s reactions, and closure with an evaluated coda (*Amen. No no. Now, uh no more*) contributes to the coherence of the evaluative content.

David, hurts. Hard. Blood. Everything. Uh uh look. Um, I um five. Uh uh five. And now uh blood. “What a world?” [‘What in the world happened to you?’] Uh a friend, a friend. “Wrong?” [‘What’s wrong?’] “Porch. Uh, porch.” [‘I fell off the porch.’] Angry. Mean. Now. “Oh me!” Pow! Me. Pow! Uh now blood everything. No, no! No! Uh five. Five. Uh David. Um, uh hard! Hard! Amen. No, no. Now uh no more.

Yet another example illustrates the potential primacy of the evaluative function over the referential function in forming coherence for some speakers with aphasia. A middle-aged Caucasian man with mild aphasia told the story of his stroke twice (Olness, 2007). Tellings were separated by over a week. Excerpts from the parallel expression of the same complicating action from the two tellings are below, for comparison.

Telling 1 (Complicating action):

And, and I think that, and I went, “Goddamn it. It’s something bad.” I dunno. And “Damn” you know.

Telling 2 (Complicating action):

And I start, um And I start, um uh I start uh uh uh I stood up and I just, my hands hurt. And and I could read, and I could read it but I couldn't do my hand. And so I said uh "I don't wanna be like that."

Note that while both complicating actions include evaluative language such as direct speech, evaluative content completely replaces any expression of referential content in the complicating action of the first telling. Reference to agents and their activities were completely absent in the first telling of the structural complicating action, a structural location where reference to agents and their activities is most critical.

Example Set Three: Breakdown of temporal-causal order

Illustrated below is an example of a pattern found in at least two narratives of individuals with relatively more severe aphasia in the authors' data sets. Referential problems, such as anomia, hold up the progress of the event line. The narrator then cycles back to the beginning of the same portion of the event line repeated times, which disrupts the temporal-causal order. Ultimately, this combination of poor reference with disruption of the temporal-causal sequencing of the narrative has a profound negative impact on the overall coherence of the narrative. In a story about an intruder, a young-elderly African-American woman with moderate anomic aphasia reiterates short portions of the event line, beginning with the direct speech of the climax. The first utterance of each iteration of the event line is underlined to display the pattern.

....And I was uh, I said, I said, "What are you doing? And when he saw I was there, when he see, when he did, when I had in there, he said. And uh, when I said something, he he said you know he said uh. I said I said, "What do you want?" That's when uh, when I was there then he, he said uh. I, I don't think he know what I wa, what you know, and what he was trying to uh, get that uh, and when I sa, when I said that and he and he saw me. And that's when he was trying to get back outside. And uh, and when, when he was trying to get the the the the, the uh [Interviewer: Door] Door. And he was trying, he was trying, he drawin [trying] to he was trying to. And, and I said, "What are you doing?" That's when he come and and uh he was trying to go out then... [narrative ends without resolution or coda]

Assessing Coherence of Narratives in their Context of Use

The previous section illustrated assessment of the coherence of individual narratives elicited in clinical research settings. Considered in the current section is evaluation of narrative coherence in more naturalistic, ecologically valid contexts, which is our ultimate goal in any assessment of narrative functionality.

Assessment of narrative coherence in a group setting.

Communicative competence is a primary goal of group therapy (Ewing, 2007), and expression of group members' personal experiences and opinions, e.g., through personal narratives, is a primary means of working on communicative competence in this setting (Bernstein-Ellis & Elman, 2007). Clinical researchers can document a group member's

interactional achievements by examining the degree to which personal stories of a group member fit with the ongoing topic of group discussion. For example, one middle-aged African-American woman with mild aphasia (Ulatowska & Olness, 2007) made an evaluative contribution that fit coherently with the group's joint narrative on their parallel experiences during a historic tornado.

Ooh, it was something to see! People running, telling, "I'm gon catch it. I'm gon catch it!" They catch that tornado, they done caught something, they catch that. They catch that tornado, they done caught something.

Interactional achievement may be further indexed when a group member's own stories are coherent enough that subsequent stories of other group members are related to the key points made in the story he or she told.

In addition, researchers can also observe and document the interactional strategies that story-tellers use to secure interest of the group; gain control of the floor; ensure understanding during their story telling; re-direct and re-formulate the story line or evaluative points based on interruptions, feedback or comments from the audience; and close a story (cf. Ervin-Tripp & Küntay, 1996; Norrick, 2000). In joint story telling of co-experienced events, the balance between group members' relative contributions can also be documented.

Assessment of narrative coherence in the larger cultural context.—Production of coherent personal stories is dependent largely on the speaker's understanding of shared world knowledge and shared communicative resources in one's culture. As noted by Saville-Troike (2003), "while many of the functions of language are universal, the ways in which communication operates in any one society to serve these functions is language specific" (p. 14). At the discourse level, "even the definition of a well-formed discourse is determined by culture-specific rules of rhetoric" (Saville-Troike, 2003, p. 10). For example, *topic associating structure* is an alternate narrative structure sometimes used by African Americans (Michaels, 1981). As another example, a narrator's use of features of his or her native dialect can enhance the evaluative function and vividness of direct speech, as seen in the following example of an African American woman with aphasia, who is telling the story of her stroke (Ulatowska et al., 2011):

I got up. I tried to get up. But I fell back down and then my daughter 'em said, "What's wrong with you Momma?" I said, "I don't know what's wrong." And they said, "Sit on down before you fall again." I said, "Shoot, it's something wrong with me." And they looked at me and said, "It sho' is."

People can be thought of as being members of a "discourse community" (Saville-Troike, 2003, p. 17), such as members of general American culture (Polanyi, 1989) or American midwesterners (Johnstone, 1990). In research on discourse coherence and communicative competence, it is essential to know the discourse community or communities (e.g. ethnic, regional, gender-based and occupational) in which research participants are members (Saville-Troike, 2003). Likewise, it is helpful to know the cultures in which they may be participants without being a cultural member, as is the case with immigrants. Such information provides one window into the pre-morbid discourse practices of our clinical research participants and the communicative demands placed on them, against which we

can assess their post-stroke performance. For example, for one man with aphasia whose Bantu culture places value on intergenerational transmission of one's values through stories, narratives were one means by which he transmitted his cultural heritage to his grandchildren (Ulatowska & Self, 1996).

The "culture of assessment" should be equally considered as a discourse culture, for the discourse testing contexts may be alien to our research participants and clients. For example, in research by the second author, evidence of this cultural disparity was seen in post-testing reactions of American participants to some picture-elicited discourse tasks, and differential willingness of Europeans and Americans to share personal narratives with a relative stranger. We have attempted to bridge this cultural disparity gap by including interviewers who are from the same cultural group as the client with aphasia, and through sampling of discourse on universally salient themes, such as a frightening experience or the story of one's stroke.

Notably, only a certain percentage of members of a discourse culture are considered "good story tellers" by members of that culture (Olness, Ulatowska, Carpenter, Williams-Hubbard & Dykes, 2005; Ulatowska, Olness, Samson, Keebler, & Goins, 2004). Thus, clinical research design should include ethnographic descriptions of participants' pre-morbid storytelling abilities and practices within their respective cultures. Notably, the general characteristics of stories culturally rated as "good" include selection of more salient topics, conventional narrative structure, and use of drama-like features such as direct speech, prosodic shifts, voice changes and repetition. Many of these story-telling features are preserved in narrators with aphasia (Olness et al. 2010), so aphasic narrators who were good story tellers before their strokes may be able to build on their pre-morbid story-telling abilities.

Conclusions and Coda

Longacre (1996) comments that it is preferable to study discourse "in action as a functioning organism" (p. 31). The qualitative framework and illustrative assessments of personal stories provided by the current review were motivated by a desire to explore how linguistic forms, narrative structures, shared knowledge, and communicative context *function together* in the production of coherent stories, as a complement to the many quantitative discourse studies of forms and structures that the field of discourse aphasiology has mastered and whose ecological significance we are working to understand (Armstrong, 2000). As noted by Damico, Simmons-Mackie, and Schweitzer (1995), "qualitative research offers an alternative approach for specific questions that is as valid and valuable as more quantitative and experimentally oriented research" (p. 90). Our hope is that the current review lives up to this potential, and that the issues that this review raises may guide the field toward selection of complementary quantitative approaches that hold the most promise for elucidating narrative functionality. A logical next step in development of on-line transcription-less approaches to analysis would be to assess the reliability and external validity of behavioral observations and qualitative ratings. For instance, the field may choose to check the reliability of qualitative transcription-free ratings of referential functions and to test their convergent validity with transcription-bound analyses of cohesion. Similarly, on-line ratings of overall evaluative functionality and point-making may be validated with

transcription-dependent analysis of evaluative device use. Quantitative measures, carefully chosen to focus on those resources and resource combinations that play a key role in the building of overall narrative coherence and functionality, may provide the “deep test” that helps establish the validity of more clinically feasible transcription-less approaches.

For speakers with aphasia, there is high potential for communicative competence in storytelling and the many intrapersonal and interpersonal functions it fills, yet aphasia also poses a threat to this competence. When someone with aphasia is unable to “tell their own story,” they need the opportunity to have intrapersonal and interpersonal needs met through joint telling of stories, and through listening to personal stories of others. However, if researchers and clinicians in our field can find a way to guide narrators with aphasia in fulfilling their own autobiographical need for expression, we can hope to have made at least a small contribution to their lives.

Certainly people who have aphasia will define for us those storytelling contexts which are the most meaningful for them, and those where they have their greatest struggles. What may be “incoherent” to researchers in a clinical context may very well be fully coherent and meaningful in the contexts of aphasic persons’ lives. The goal in many interpersonal communication contexts may not be full referential clarity, but rather effective expression of one’s opinion, as expressed through evaluation. As Norrick (2000) notes, tellers of personal stories “re-create memories of past events to fit the present context” (p. 2), but defining the most functional of storytelling contexts will require consultation with the real experts. Audrey Holland (2010) writes about her lifelong process of learning about aphasia from the experts who live with the disorder. As one local friend and clinician, who has spent her whole life working with this population, recently commented, “I have learned more about aphasia from being friends with these folks than I ever began to know...the disorder is more pervasive, changes lives more dramatically, than I imagined. Living with aphasia (or in my case, hanging out with aphasic persons) . . . is the way to really learn about it.”

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