A COLLABORATIVE APPROACH FOR TREATING CONVERSATIONAL NARRATIVES: AN APHASIA TREATMENT CASE STUDY

BY

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THESIS

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ABSTRACT

The current study aims to understand the ability of a 15-session, collaborative intervention to support conversational narrative telling between an individual with moderately-severe, chronic aphasia, Mr. Lee, and a clinician partner. This study merges lines of research from the social-learning-based barrier game intervention (Hengst 2003, 2008; Hengst, Duff, & Dettmer, 2010) and research characterizing conversational narrative use by individuals with aphasia (Pratzel, 2008). Utilizing an interpretive case-study design, this study incorporates ethnographic methods of data collection for discourse analysis, and an additional clinical assessment tool, the Communication Confidence Rating Scale for Aphasia (Babbit & Cherney, 2010), to monitor the potential impact of the intervention on Mr. Lee's communication confidence outside of treatment conditions.

Data collection included four initial assessment sessions, followed by 15 overall treatment sessions comprised of 12 barrier game sessions and three photo album sessions. Treatment sessions were carried out two times per week for a total intervention duration of two months. Each barrier treatment session (treatment sessions 1-4, 6-9, 11-14) included an initial captioning exercise of new photo playing cards, up to six rounds of playing the two-player barrier game, and a final elicited narrative probe. The barrier game consisted of Mr. Lee and a clinician partner working together to match configurations of their identical photo playing card sets (of 12 playing cards each) onto their playing boards, with a partial-barrier in between them. Playing cards used were photographs personalized to Mr. Lee's life and interests, and were contributed both by Mr. Lee and by the research team. During photo album sessions (treatment sessions 5, 10, 15), a photo album was collaboratively constructed between Mr. and Mrs. Lee and the research team, utilizing photo cards played with during the barrier game.

Analyses of the video data from the 12 barrier game treatment sessions were completed, with the goal of identifying the total number of conversational narratives told, characteristics of their tellings, and their evolution across retellings. Coding of each barrier game session involved a four-pass consensus process, transcribing and identifying full and kernel conversational narratives, their initiator, tellership, initiation context, audience involvement, linearity, and general theme. Later analysis of intra-rater agreement revealed high overall agreement, with 94% agreement in identification of conversational narratives, and coding of additional narrative characteristics ranging from 76-93% agreement. Narratives of repeated themes were also

identified and tracked across retellings to view their evolution across time. Results were supportive of the conclusion that the intervention used in this study was able to support conversational narratives, with a total of 761 full and kernel conversational narratives identified. However, as fidelity to game-play was not maintained, no claims could be made on the ability of the barrier game specifically to support conversational narrative telling. Analysis additionally showed patterns in the increased ability of personal playing cards (photos taken by Mr. Lee or the clinician) to facilitate and support conversational narrative telling, as compared to non-personal playing cards (photographs individualized to Mr. Lee's life and interests, however not taken by Mr. Lee or the clinician themselves).

In addressing the evolution of narrative tellings across retellings, 32 thematically distinct narratives were found to be told and retold over the course of barrier treatment sessions, with a range of two to 12 retellings per distinct narrative. Patterns were also seen in the streamlining of narratives across retellings, with 74% of retold narratives told as a full conversational narrative and later indexed into a succinct indexical kernel narrative. Additionally, Mr. Lee's single-teller narratives told in the elicited narrative probes showed a pattern of increasingly closed linearity in later treatment sessions as compared to initial treatment sessions. Lastly, results of the self-report Communication Confidence Rating Scale (Babbit & Cherney, 2010) administered across four, equally-distributed points, revealed a pattern in Mr. Lee's increasing communication confidence across the course of the intervention.

Overall, this study showed the ability of a collaborative, individualized intervention to support conversational narrative telling between an individual with aphasia and a clinician partner, revealed the pair's ability to successfully streamline conversational narratives across retellings, and displayed the social impact of the intervention on Mr. Lee's life outside of treatment conditions, seen through the continual increase in his self-reported communication confidence. The use of situated discourse analysis methods, additionally showcased the benefit of acknowledging and highlighting situated and embodied communicative interactions to further understand and characterize patterns of communication. Finally, this research points to the potential benefits of maintaining clinical awareness of and providing support for engagement in telling and retelling of full and kernel conversational narratives in intervention.

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CHAPTER 1: INTRODUCTION

Conversational narratives play an integral communicative and interactional role in our everyday lives, deployed as distinctly emergent and flexible discursive resources which are integrated into social interaction and utilized across the scope communication (Ochs & Capps, 2001; Hengst, 2010). While their presence and use has often been acknowledged in child development literature for contributing to communicative development and construction of identity (e.g., Miller, Mintz, Hoogstra, Fung & Potts, 1992), little attention has been paid to the patterns of use and related clinical implications of conversational narrative use and construction in individuals with aphasia. Instead, narrative abilities of individuals with aphasia have largely been constrained either to deficit-based consideration of linguistic (structural and functional) features in task-based, elicited narrative production, or considered for monitoring adjustment to disability, operationalized through tracking quality of life benefits of elicited illness narrative tellings. However, works grounded in situated theories of discourse, such as those by Hengst and Duff (2007a), Pratzel (2008), and Hengst (2010), have instead begun to consider the pervasive presence and common interactional patterns of collaborative conversational narrative use by individuals with aphasia and their communication partners. These works point to the clinical potential of using these narratives, encountered across our everyday lives, in intervention. Further, their highlighting of the highly intact abilities of individuals with aphasia to negotiate their participation in narrative construction, is a process I which have been able to participate in, first-hand.

As an undergraduate student, I had the opportunity to volunteer at an intensive rehabilitation program for individuals with aphasia and was able to observe individual treatment sessions and participate in group treatment and lunchtime activities. Across these varied environments, I was surprised by the large differential I saw in the small amount of story-telling engaged in or pursued in individual therapy sessions, as compared to the vast and successful use of narrative in a common, and seemingly mundane activity as lunchtime. During lunchtime, I had countless opportunities to serve as an audience member in a number of beautifully developed and emotionally impactful stories told by patients and caretakers together and alike, such as the recounting and sharing of individual's stroke and illness stories. However, what drew me in even further was the more frequent telling of "little" stories. These stories may not have captured the room for an extended period of time, but nevertheless were threaded seamlessly into

lunchroom banter and conversation by volunteers, family members, staff members, and individuals with aphasia alike. They surfaced in run-of-the-mill negotiations between SLP's passing through and patients on how their recovery was progressing, specific reflections on multi-lingual capabilities before someone's stroke, short stroke experience comparisons between continuing patients and newcomers, and even humorous bets on how soaked one of the patients would be in returning from their run in a rainstorm, based on previous stories of them biting off a longer run than they could chew (and not checking the weather beforehand). Likewise, staff members used repeated narrations to reaffirm the successes of patients ("When you first got here I remember you couldn't…and now you can…"), family members reflected both on tearful hardships and elated triumphs in re-working their family's lives and their own lives ("Yesterday I tried to get him to talk to me again, but..."), and the entire room unearthed and bonded over often indexed, classic lunchroom stories and shared experiences ("Yeah but remember the last time she lost at Uno she got so mad. She's very competitive"). These stories changed continually based on who bought-in to listen (an abandoned narrative about a recent political event considered too taboo for lunchtime), what the content was (a debate on who won in cards last time, or a somber retelling of the car accident which caused a stroke), and competing goals and activities (a rushed recounting of the therapy session before the therapist walked in, or an elongated narrative of someone's recent puppy adoption; a story everyone stopped to listen to, curious to hear). Although most of these narratives were not perfectly polished or performed, and many were re-told and contested, they all seemed to serve as a way to move conversation, ideas, and relationships further. Similarly, many were left unfinished and were not polished linguistically or in content, but still somehow always managed to engage and connect a part of the group, drawing listeners and others in the room in, both willingly and unwillingly, to serve as part of the discussion.

Given the known impact of aphasia on an individual's language use, my experience showcasing the flexible and successful story-telling which occurred every day in the lunch room could seem surprising. However, translations or clinical research has long supported the argument that communicative abilities of individuals with aphasia are often able to exceed beyond underlying disruptions in language forms (Holland, 1982, 1998). In considering this view, the prevalent success in story-telling that I saw in this otherwise standard lunch-room environment may have in part been supported by overarching communicative strengths of the

individuals present, with additional support provided by the social and environmental context of each narrative telling. Further, given the pervasiveness and centrality of conversational narratives to everyday social interaction and self-identity, these narrative tellings might serve as a frequently occurring and salient therapeutic target which could draw upon and utilize communicative strengths in order to rehabilitate underlying linguistic impairments. In order to do this, this study broadly aims to utilize a collaborative, activity-based intervention to support conversational narrative telling between an individual with aphasia and a communication partner. Next, research literature regarding narrative elicitation and analysis in individuals with aphasia will be reviewed.

CHAPTER 2: LITERATURE ON NARRATIVE TELLING AND APHASIA

Narrative telling has long been of interest across the fields of developmental and cognitive psychology (e.g., Stern 1989; Miller et. al, 1992), sociolinguistics (e.g., Labov, 1972; Kernan, 1977), and more recently in communication sciences and disorders (e.g., Gleason et. al, 1980; Linebaugh, Kryzer, Oden & Meyers, 2006; Hengst, 2007; Olness, Matteson & Stewart, 2010; Marini, Andreetta & Carlomagno, 2011). The scope of narratives studied has varied widely across these disciplines, largely due to differences in underlying theoretical bases and methods used to conceptualize and study narrative use. Although research in communication sciences and disorders has considered varying conceptualizations of narrative telling, aphasia research has primarily focused either on linguistic analyses of elicited narrative telling, or quality of life benefits of telling personally meaningful narratives. Analyses stemming from structural and functional linguistic approaches have typically used narrative telling to measure linguistic abilities of individuals with aphasia. Narratives elicited for quality of life analyses have looked to understand benefits of engaging in personally meaningful narratives (typically illness narratives) in order to understand psychosocial adjustment and rehabilitation of identity post-stroke.

In contrast, little attention has been paid to the ways in which individuals with aphasia and communication partners tell narratives as a communicative practice situated within interaction. Specifically, there are gaps in the current literature regarding the flexible, emergent, and contextualized use of conversational narratives by individuals with aphasia. Although conversational narratives have been noted for relevance in communication and development of identity in developmental psychology, there has been little consideration of the function, relevance, and patterns of conversational narrative use in the field of adult neurogenics. Additionally, despite the growing number of studies tracking the successful situated communicative abilities apparent in reorganized interactional patterns of individuals with aphasia (see Simmons-Mackie, Kingston & Schultz, 2004; Hengst, 2003; 2006), more frequently used structural and functional linguistic methods of narrative analysis have instead relied heavily on deconstruction of a subset of elicited narrative tellings. Therefore, in contrast with documentation of pervasive and successful narrative telling in individuals with aphasia (i.e., Pratzel, 2008), the majority of research regarding narrative abilities of these individuals has focused on and concluded weaknesses in narrative form and linguistic features of tellings. This

chapter will provide a review relevant work in gathering of narrative tellings and analysis as pertains to individuals with aphasia.

Methods for Collecting and Identifying Narrative Tellings

Narratives collected for linguistically-based analyses have typically utilized three major methods, all of which maintain specific focus on elicitation of narratives: picture-based narration, common story retellings, and semi-structured interviews. The first of these methods includes elicitation of narratives in relation to a single picture prompt (such as the Cookie Theft or the Picnic) or picture sequence prompts (such as the Flower Pot (Andreeta, Cantagallo & Marini, 2012; Gleason et. al, 1980; Linebaugh, Kryzer, Oden & Meyers, 2006; Marini, et. al, 2011; Menn, Ramsberger & Estabrooks, 1994; Ulatowska, 1983). Second, story retell procedures are used to elicit retelling of a common or well-known story, such as the Cinderella story (Duncan & Small, 2017; Gleason et. al, 1980; Ulatowska et. al, 1983). Standardized elicitation stimuli (e.g., Cookie Theft picture, Cinderella story) are typically used in these two elicitation methods (picture-based and story retell), although some studies instead use non-standardized, controlled stimuli (see Linebaugh [2006], for discussion on the effect of familiarity, such as use of personal picture stimuli, on narratives told). Last, narratives are also commonly elicited through an initial, predetermined question targeting subsequent production of a particular narrative within a semi-structured interview. Narratives targeted through this format are typically related to personal or autobiographical events, such as recalling a frightening event, or telling of an individual's "stroke story" (Linebaugh et. al, 2006; Ulatowska et. al, 1983; Armstrong & Ulatowska, 2007; Ulatowska, Reyes, Olea Santos & Worles, 2011; Matteson, Olness & Caplow, 2013; Olness & Ulatowska, 2011; Corstern et. al, 2014; Radcliffe, Lowton & Morgan, 2013). Similarly, studies focused on quality of life benefits of narrative telling have used semi-structured interview formats focused particularly on eliciting narratives of personal experience. Specifically, this research has focused narrative collection and analysis on tellings of personally meaningful stories, such as autobiographical and health or illness narratives (Shadden & Hagstrom, 2007). Through the use of similar prompts (e.g., tell me about your most frightening experience, stroke story), narratives elicited are typically also similar in subject content (Olness et. al, 2010, Ulatowska, Reyes, Olea Santos & Worles, 2011).

In contrast with narrative-specific elicitation, conversational narrative tellings have been identified and pulled from the larger context of conversation integrated within interaction. For

example, Pratzel (2008), detailed further below, studied conversational narratives as they were told by individuals with aphasia and their communication partners across multiple interactional contexts. Contexts included playing of a barrier game, semi-structured interviews, and varying activities during community observations of participants, all of which were supportive of conversational narrative telling.

Conceptualizing Narrative

In addition to methodological differences regarding the elicitation or identification of narrative tellings in research, the conceptualization of what constitutes a narrative telling varies widely across theoretical bases, making a single, comprehensive definition difficult to discern. Variances in narrative conceptualization can be seen with particular distinction between elicited narrative tellings and conversational narratives, which will be further detailed throughout this section. However, at their core, most studies across aphasia literature view narratives as discourse conveying a temporally displaced sequence of related events. In research evaluating varying aspects of social context and language in-use (i.e., functional linguistics, see Olness et. al, 2010, and situated theories of communication, see Pratzel, 2008), these events are also simultaneously infused with the speaker's opinions and interpretations, thereby conveying larger meaning and consequences to an audience.

Linguistic-based analyses, both structural and functional, have often been guided specifically by designated superstructural frameworks of narrative production (e.g., Labov's principles for fully-formed narratives). These narrative components are then applied to elicited narratives, to determine what constitutes as a full narrative, (e.g., presentation of sequential temporally displaced events), what constitutes as a full and well-developed narrative (such as inclusion of all narrative structural components, or highly tellable through use of evaluative devices; see Ulatowska et. al, 2011), and what does not constitute as a narrative telling at all (e.g., picture description; see Olness et. al, 2002). Identity and adjustment to disability work on narratives has instead conceptualized narrative to conform to well-formed, elicited autobiographical and illness narrative tellings, in order to maintain focus on quality of life and psychosocial impacts of narrative telling, rather than the linguistic or communicative patterns present during these tellings (e.g., Shadden & Hagstrom, 2007; Corstern, 2014).

In contrast, work involving conversational narratives, which has typically drawn from situated theories of communication, also attends to and utilizes core, underlying elements of

narrative telling (i.e., presence of temporally displaced events and evaluations, similar to some linguistic analyses), however provides a more flexible understanding and framework for what narrative discourse may look and function like in the stream of overarching interaction through everyday conversation (Schegloff, 1997; Ochs and Capps, 2001; Pratzel, 2008; Hengst, 2010). While individuals with aphasia are often considered adept communicators, despite disruption in underlying language systems (e.g., Holland, 1982, 1998; Goodwin, 2000), little work has addressed the communicative abilities of individuals with aphasia to draw on and integrate embodied and contextualized resources to construct conversational narratives within interaction. Therefore, little attention has been paid to the possible clinical potential of conversational narrative work as a communicative resource and intervention point in the reorganization of interactional patterns. Similarly, the potential of clinically relevant quality of life and psychosocial benefits through engagement in personally meaningful conversational narrative tellings within interaction, beyond autobiographical and illness narratives, has yet to be addressed in the narrative and aphasia literature.

Analysis of Elicited Narratives and Aphasia

As detailed above, most studies of narrative telling in individuals with aphasia rely on task-based elicitation of isolated narratives, assessing either linguistic competence in narrative production or changes in quality of life outcomes related to narratives elicited through semi-structured interviews. In addition to the standard use of elicited narratives, the majority of published studies on narrative discourse of individuals with aphasia rely on analyses which compare elicited narrative productions directly to linguistic and structural conventions, frequently falling in line with a deficit-based view of aphasia rehabilitation. In some studies, this is realized by contrasting structural attributes of narratives told by aphasic speakers to a comparison group of non-aphasic peers (e.g., Gleason et. al, 1980; Olness et. al, 2010), while other studies utilize classical frameworks for narrative production and structure, and linguistic quality of verbal output as comparison measures for determining levels of narrative competence (e.g., Menn et. al, 1994; Ulatowska et. al, 2011). Specifically, much of the research in this area has utilized the structural narrative components delineated in work by Labov (i.e., Labov, 1972; 1997) to provide a framework for what production of narratives must include to be fully-formed. Included in this framework for fully developed narratives is the presentation of an abstract, orientation clause, complicating action, resolution, and a coda, utilizing temporally organized

reportable events and interpretive evaluations which contextualize and bring sense to the narration. This use of standard elicitation methods for narrative production and classification does provide consistency and control in research comparing narrative abilities among individuals with aphasia and non-aphasic controls. However, studies relying purely on elicited narrative telling provide a narrow view of narratives, and are unable to best account for the wide variety of contextualized narrative tellings which contribute to interaction. Grounded in a deficit-based view of aphasia as a disorder, these methods of analysis typically shed light on linguistic abilities which are disrupted in narrative production due to the effects of aphasia, with a limited number of studies acknowledging intact abilities of individuals with aphasia to engage in narrative telling. While these results, briefly outlined below, often provide relevant diagnostic information regarding linguistic abilities in narrative telling in aphasia, their capacities to be translated into effective clinical work is limited.

Structural Linguistic Analyses. The majority of elicited narrative research has analyzed narrative value and competence with a reliance on structural analysis of linguistic components and, in particular, on verbal output. Structural analysis as reviewed by Marini (2011) typically includes "quantitative measures of phonological processing, lexical selection, grammatical construction, and ability to provide adequate structural (cohesion) and semantic (coherence, both local and global) connections between the utterances" (p. 1376). Concordantly, the majority of research depending on structural linguistic analyses of narrative competence also falls in line with a deficit-based conceptualization of aphasia as a disorder, focusing on structural narrative deficiencies as due to underlying disruptions in damaged linguistic systems. As reviewed in Pratzel (2008), findings in these studies typically highlight disruptions in micro-linguistic structure of narratives of individuals with aphasia due to primary disruptions in linguistic abilities. For instance, Duncan and Small (2017) utilized imitation-based aphasia therapy to target deficits in linguistic narrative ability related to the Cinderella task (i.e., elicited narrative re-tell), with the explicit aim of improvement in ability to produce verbal linguistic output. In this case, indications of improvement in narrative abilities were operationalized through quantitative measures such as correct information units produced. Similarly, Marini (2011) elicited narrative discourse through two single pictures (Cookie Theft and The Picnic) and two picture sequences (Flower Pot and Quarrel), and utilized structuralist outcome measures; speech rate, MLU (total number of phonologically-correct words produced divided by the number of

utterances), percent of complex utterances, fluency, articulation, and empty speech as well as linguistic-based functionalist components; narrative organization (cohesion and coherence) and informativeness.

Functional Linguistic Analyses. Studies utilizing functional linguistic analyses of narratives, which look to place increasing focus on ability to convey meaning, also employ outcome measures which maintain reliance on verbal linguistic productions (i.e., MLU, percentage of words which relay appropriate meaning) (Marini, 2011). Although a small number of published analyses consider use of multi-modal and embodied communication in narrative tellings (e.g., evaluative use of pitch as analyzed in Olness et. al, 2010), most of the literature maintains a focus on abilities to use linguistic structures. Even consideration of multi-modal communication remains similarly linguistic, such as analyses of linguistic abilities in written narratives. In contrast to structural linguistic analyses, functional linguistic analyses do move towards consideration of intact narrative and communicative competencies present in narratives told by individuals with aphasia. Specifically, relative preservation of certain overarching (or macro-linguistic) language abilities is often noted for supporting interactional participation in narrative communication. These abilities have included utilization of evaluative language (e.g., emotive words and phrases) and use of resources such as reported speech and intonation, (Ulatowska et. al, 1983; Olness et. al, 2010; Ulatowska et. al, 2011; Oliveira & Oliveira, 2012). For example, the mixed structural and functional linguistic analysis of elicited story tellings and summarizations by individuals with mild aphasia in Ulatowska (1983), concluded that formal narrative structure (i.e., sequence of actions, story peaks) was largely preserved, albeit with decreased informative content related to superstructure of narratives (use of codas, abstracts, and evaluations), decreased number of events, and reduced sentential complexity in language. Olness (2010), in analyzing narrative discourse elicited through semi-structured interview (i.e., "think of a time you were frightened or scared") concluded that despite decreased linguistic complexity, deployment of evaluative devices, including intonational devices, which were integrated into narrative tellings by individuals with aphasia remained similar to narrators without aphasia. The only exception to these findings, showing dissimilarities in narrative tellings between groups, was seen in individuals with severe aphasia, when narrative structure was compromised. This pattern of intact pragmatic abilities and deployment of narrative devices

was also seen in the effective and frequent use of reported speech of individuals with aphasia when telling elicited stroke narratives (Ulatowska, Reyes, Santos & Worle, 2011).

Clinical Impact of Linguistic Analyses. Across literature focused on linguistic components of narratives (both structural and functional), operational definitions of narrative and subsequent analyses maintain a reliance on verbal expression of a closed set of superstructural narrative components in order for discourse to qualify as an adequate narrative. This approach is designed to draw conclusions about deficits in linguistic abilities of individuals with aphasia used to produce narrative discourse. Furthermore, the nature of these elicited narrative tasks, although beneficial for standardization of tasks for experimental control, limits the communicative resources typically available during narrative construction in day-to-day interaction, including other communication partners.

Diagnostically, linguistic analyses of elicited narratives do present salient linguistic characteristics of narratives, which might be used to differentiate between aphasic subtypes (see Gleason, 1980, for a discussion of narrative differentiation in anterior versus posterior aphasia). However, the translational use of elicited narrative production and analysis within highly controlled procedures is limited. While useful diagnostic information in characterizing and grouping linguistic deficits, these analyses fail to shed significant light on the intact competencies of individuals with aphasia to utilize communicative resources when participating in narrative telling. Instead, limits placed on the communicative and interactional resources available in conversation, even in functional linguistic analyses, make success in these tasks highly reliant on intact (and typically verbal) language abilities. Overall, these investigations therefore often fail to acknowledge successful interactional patterns and potential for intervention in these patterns of individuals with aphasia and their communication partners, as they utilize narrative discourse as a communicative resource to negotiate communication. This places significant restraints on the translational clinical relevance of linguistically-based analyses and findings in relation to intervention and rehabilitative outcomes.

Interactional Analyses. Given the nature of elicited and isolated narrative tellings, few analyses of interactional patterns in elicited narrative telling have been completed. While acknowledgement of the variety of communicative resources used in narrative telling by individuals with aphasia is progressing, the limited number of studies analyzing interactional qualities of elicited narrative tellings have almost exclusively focused on narratives in which

individuals with aphasia are the sole teller. Therefore, few studies of elicited narratives have included consideration of co-told narratives, wherein multiple parties take part in a narrative telling. Further, these collaborative aspects of narrative telling have typically been considered as negative with regard to overall narrative competency. For example, Linebaugh et. al (2006) utilized conversational analysis in examining tapes of what they term "communicative interactions in narrative form" (i.e., elicited narratives as opposed to non-narrative conversational structure), including response to an initial pre-determined question (what did you do last weekend), a description of the participant's home, and telling a story utilizing picture prompts which depicted events. Here, the authors acknowledged certain collaborative aspects of conversation, which they argue are inherently present through discussion and measurement of a communicative burden differential in conversation. Narratives produced by individuals with aphasia and their primary communication partner were therefore analyzed for their respective percentages in initiating communicative exchanges, using any communication modality or combinations thereof. Findings concluded that a significant amount of communicative burden was redistributed to partners without aphasia, with additional trends in severity of aphasia positively correlating with higher communicative burden differential.

Although this work does begin to acknowledge both multimodal communication and multiple parties contributing to narrative discourse, it poses multiple participants in narrative telling as a negative quality in narrative telling. Specifically, this work concludes the presence of multiple narrative participants as a sign of high communicative burden, rather than considering narrative telling as a communicative negotiation which is supportive of multiple tellers (i.e., who each contribute content). This is in contrast with literature employing situated analyses, such as that of Oelschlaeger & Damico (1997), which focuses on joint production as an interactional technique used to enable and support communicative success in conversation between an individual with aphasia and his wife. Therefore, the portrayal of multiple participants in Linebaugh et. al (2006) as a sign of high communicative burden and deficient communication, is unable to capture beneficial collaborative aspects narrative tellings. Particularly, this analysis stops short of acknowledging instances where collaboration supports and augments use of narrative capabilities (as opposed to only indicating need for repair of a breakdown) and resources interwoven in interaction, beyond who initiates and instead of as an interactional burden placed on non-aphasic partners.

Quality of Life Analyses. Elicited narrative production has also played a significant role in aphasia research based in social models of aphasia, typically aiming to extend understanding of the impact of aphasia and communication rehabilitation beyond verbal language use, through the consideration and inclusion of quality of life measures related to communicative and social participation (Shadden & Hagstrom, 2007; Corstern, 2014). These analyses draw strongly upon the noted therapeutic nature of telling a specific type of narrative, such as autobiographical and illness (or "stroke-story") narratives, in rehabilitation of self beyond linguistic targets. Specifically, this rehabilitation of identity through narrative telling has been theorized to improve quality of life through increasing social validation and subsequent participation in individuals with aphasia (Shadden & Hagstrom, 2007). Often stemming from sociocultural theories of communication, the vast majority of these studies view autobiographic and health or illness narratives as necessary tools for making sense of self identity in relation to the world through interaction, of particular importance in aphasia rehabilitation (Corstern, 2014). Many of these reviews therefore view collaborative co-telling of narratives as a positive attribute, and showcase interactions between clinical use of health and illness narratives and rehabilitation of self-identity and improvement in related quality of life (Shadden & Hagstrom, 2007; Bronken et. al, 2012; Radcliffe, 2012; Corstern, 2014). Shadden and Hagstrom (2007) highlight this purpose for narrative use as in-line with the socially-based philosophy for intervention of Life Participation Approach to Aphasia (LPAA), reasoning that "decreased impairment and/or increased functional skills do not automatically enhance participation and well-being at the societal level" (p. 324). Again, their discussion focuses on stroke narratives specifically, which are a form of health and illness narratives with a long history of research pertaining to psychosocial benefits (see Frank, 2007). The authors also advocate for the role of speech-language pathologists acting with "narrative competence," in order to become a beneficial part of the social context which might support individuals with aphasia in telling their stories. As a set of philosophical guidelines, LPAA provides suggestions for beneficial principles to intervention as related to narrative use, but does not delineate particular intervention contexts which might support this specifically.

Additionally, consideration of narrative telling and impact on quality of life factors has remained steadily contained to a specific sub-set of personally meaningful narratives; developed, elicited illness (or "stroke-story") narratives. Consideration of personally meaningful narrative engagement apart from illness narratives has been theorized to be a driving factor for narrative

work in general, in order to increase ability to cope with identity change and maintain social bonds through narrative telling (Armstrong & Ulatowska, 2007). However, the possible impact of personalized narrative intervention not centered around illness narratives specifically on psychosocial factors in individuals with aphasia has not been operationalized or addressed directly.

Conversational Narratives

In contrast with the elicited narratives considered above, conversational narratives are flexibly emergent and dialogic, supporting a wide range of narrative tellings through constant negotiation and renegotiation of meaning and structure as conversational partners and groups draw upon each other and surrounding sociocultural histories and context (Küntay & Erwin-Tripp, 1997; Laurier, 1999; Ochs & Capps, 2001; Hengst, 2010). These narratives have long been of interest particularly to child development literature, with authors examining the inter-weaving of stories and lamination of communicative stances and resources in interaction (Miller et. al, 1992; Küntay & Erwin-Tripp, 1997; Bamberg & Georgakopoulou, 2008). Therefore, many of the narrative analyses in this literature more aptly draw upon situated analyses of conversational and communicative patterns and development. Driven by sociocultural views of language and cognition, narratives in these works are viewed with greater flexibility in the context of conversation and, furthermore, in the social-cognitive construction of identity through interaction. Narrative acknowledgement and analysis is broadened to include and value collaborative co-narrations (Miller et. al, 1992) which may be spontaneous or elicited, not always accomplished utilizing a completed set Labovian structures, and often involving interactional variants and resources such as scaffolding, re-tellings, and resources drawn from the setting and context (Küntay & Erwin-Tripp, 1997; Stone, 1992).

In their book detailing conversational narratives, Ochs and Capps (2001) emphasized the flexibility and variety of forms inherent to conversational narrative telling. They additionally showcased the collaborative and embodied nature of tellings, where active participation in construction and telling need not be restricted to active verbal turn taking. Instead, through their excerpts of conversational narrative data, they pose that participation in co-telling during conversation is more closely related to any response that informs the trajectory of the narrative telling as it continually evolves—from gestural acts to prolonged silences (p. 26). Considering the flexible nature of conversational narratives and their integration in overarching conversation,

tellings may be seen to span a wide variety of narrative structures (i.e., well-formed, elicited, performed, non-linear, fleeting, embedded, incomplete, contested) and themes (i.e., autobiographic, health and illness, re-tellings of favorite stories, recapping mundane events of the day). Despite this emphasis on the pervasiveness and flexibility of conversational narratives, and the potential for impact on continued identity work, less attention has been paid to the communicative competence and patterns of joint reorganization of individuals with aphasia and their communication partners in utilizing these integral skills. However, consideration of these aspects the of discourse of individuals with aphasia may allow for more holistic understanding of communication beyond characteristic linguistic deficits, and may provide noted opportunities for both salient communicative scaffolding in intervention.

Conversational Narratives and Aphasia. In contrast to the use of fully-developed Labovian structure of narrative tellings as required elements of all full narratives, Labov (1972; 1997) presents minimal requirements for a conversational narrative as including two narrative clauses connected by one temporal juncture (p. 360). In line with evidence from child development and psychology literature which portray conversational narratives as flexibly emergent, distributed, and often of non-canonical structure, Hengst (2010) adapted Labov's core narrative requirements to study narrative use between individuals with aphasia and their routine communication partners. Here, conversational narratives were operationally defined as the presentation of a temporally displaced event (past, future, or hypothetical), which was linked to another, related event or evaluation. Additionally, work by Ochs and Capps (2001) which delineates five fluid dimensions that each contribute to everyday, conversational narrative tellings (conceptualized as tellership, tellability, embeddedness, linearity, and moral stance) were integrated into analysis and characterization of conversational narratives told. In this view, conversational narratives told by individuals with aphasia and their communication partners were not limited to single-teller, highly-developed structural productions (although certain tellings did also exemplify those qualities), which allowed for greater communicative multimodality in collaborative tellings. These guidelines, as well as analysis of video data utilizing situated discourse analysis conventions, also allowed for increasingly holistic and embodied understanding of conversational narratives to better understand patterns of engagement in conversational narrative tellings between pairs of individuals with aphasia and their routine communication partners.

Pratzel (2008) continued this line of research, taking an interactional sociolinguistic approach to discourse analysis and broadly aiming to characterize patterns of conversational narrative use between two pairs of individuals with aphasia and their routine communication partners. This study specifically investigated patterns of narrative use and performance (operationalized using the five narrative dimensions specified by Ochs and Capps) across three interactional contexts (semi-structured interview, barrier game treatment sessions, and community observation), patterns of participation in narrative tellings of aphasic and non-aphasic partners respectively, and the interactional context and patterns of production of a sub-set of narratives which did not meet full narrative requirements, termed kernel narratives. Coding of the presence and characteristics of conversational narratives was carried out through a two-person, three-part coding process, utilizing transcripts of video data guided by situated analysis (i.e., included meaningful gestures, vocalizations, facial expressions) which had previously undergone three transcription passes (including a consensus pass with a second transcriber). Broadly, a conversational narrative was operationalized to include two required parts: a temporally displaced event which was connected either to another, related event, or an evaluation (which could be presented verbally or by non-verbal means, such as tone). Conversational narratives were further coded as *minimal* if they included only one event and one other element (set-up, evaluation, background detail, or closing) or a performative device (such as animating devices or gestures). *Extended* conversational narratives instead included two or more events and two or more other elements or performative devices (p. 116). In contrast, a category of kernel narratives (described in the section below) was discerned to account for the significant number of instances in which narrative-like discourse was present but did not meet the requirements set for a full conversational narrative. Overall findings from this study pointed to the successful participation, both as co-tellers (i.e., related to tellership dimension) and engaged audience members, in conversational narrative telling of routine communication partners and participants with aphasia alike. In fact, results showed an overall higher percentage of co-told narratives than single-teller narratives, and additionally found no significant differences in the narrative performances (across Ochs and Capps five narrative dimensions) of participants with aphasia as compared to non-aphasic routine communication partners. Additionally, this situated analysis was able to point to ways (e.g., use of diverse linguistic and non-linguistic resources) in which conversational narratives were successfully shared, contextualized, and told between

participants in interaction, despite linguistic disruptions and aphasic errors. These findings again provide a very different view of communicative and narrative abilities in aphasia, in contrast with linguistically-based approaches to analysis of elicited and highly controlled narrative tellings, which typically highlight a variety of narrative deficiencies. Lastly, the study also found pervasive conversational narrative telling and use across the three contexts specified, with the greatest number present in community observations, followed by semi-structured interviews. The least number of conversational narratives were found in barrier game sessions, where the pairs engaged in a modified barrier game, working together to match placements of identical card sets on each player's board.

Kernel Narratives. Another major finding by Pratzel (2008) was the additional presence of kernel narratives throughout the data set. Kernel narratives were defined as underdeveloped stretches of narrative discourse, which therefore did not meet Pratzel's operational definition of conversational narratives, however which did introduce narrative elements and stances into the interaction. Specifically, these kernel narratives included tellings of habitual events, event-casting, procedural tellings of events, and event descriptions (without presentation of a specific event). Also noted in the analysis was the presence of indexical narratives, wherein a well-known conversational narrative was not fully retold, but was indexed between interlocutors. Although considered underdeveloped conversational narratives, patterns of their use pointed to their ability to convey the message of the corresponding full narrative, therefore avoiding redundant or unnecessary full re-tellings. Overall, this analysis showcased patterns of presence and use of these kernel narratives as salient clinical opportunities for entry into narrative discourse and theorized that with recognition and the right interactional support, these kernel narratives could be capitalized upon by other members of the interaction in encouraging construction of an increasingly well-developed, full narrative.

The Barrier Game

The collaborative referencing game known as the barrier game, used as the core intervention in this study, was found to support conversational narrative telling in Pratzel (2008). This game is a clinical adaptation of the barrier task protocol which Hengst (2003) adapted from Clark (1992) to study collaborative referencing in interactional discourse between individuals with aphasia and their routine communication partners. The goal of the original treatment protocol (Hengst, Duff, & Dettmer, 2010) was to marshal meaningful interactions through an

overarching activity, in this case, game play. Grounded in sociocultural theories of communication, this intervention draws upon the distributed nature of communication as it is expressed in everyday life. The barrier task intervention has been shown across multiple studies targeting collaborative communicative interactions (e.g., collaborative referencing) to support repeated engagement, recruiting declarative memory mechanisms and contributing to participants abilities to benefit from social learning (Hengst, 2003; 2006; Hengst et al., 2010; Devanga, 2015; 2017). Social learning in particular, was evidenced by a pattern of streamlining target labels, seen as the consistent simplification of target labels used to play the game over the course of treatment, as target labels were repeated (measured in agreed-upon target labels; ATLs, and repeated-agreed-upon target labels; R-ATLs).

As reported in Pratzel (2008), sessions involving the barrier game yielded the least number of conversational narratives overall (as opposed to the semi-structured interview and community observation contexts). However, pervasive conversational narrative use was noted by each pair of participants, both of full and kernel conversational narratives.

The Current Study

In contrast to the standard focus on linguistic analyses of elicited narrative tellings, the current study, grounded in situated theories of communication, aimed to maximize the ecological validity of an aphasia intervention in supporting conversational narrative telling by an individual with aphasia and a clinician partner. The use of this particular intervention, the barrier game, was supported by the findings of pervasive conversational narrative use during the barrier game intervention in Pratzel (2008). Based on the results of Pratzel (2008), the methods of analysis used in this study also looked to acknowledge the presence of kernel narratives throughout the dataset, in order to better understand their characteristics and possible clinical potential. In assessing patterns of narrative retelling across time, video data analysis aimed to view the progression of retellings, specifically whether narratives would become either increasingly streamlined (or indexed) across time or increasingly developed (in relation to linearity and tellership). Similar to quality of life analyses used throughout the narrative and aphasia literature, this study was additionally designed to recognize potential benefits to the participant's communicative confidence of the course of treatment, through the administration of the Communication Confidence Rating Scale for Aphasia (see Babbit & Cherney, 2010; 2011) across four administrations.

In order to carry out these goals, the current study merged lines of research involving the barrier game intervention and its social impact measured by change in communicative confidence (i.e., Devanga 2015; 2017) with an extension of the work in Pratzel (2008) regarding patterns of conversational narrative telling and use in multiple communicative environments (including the barrier game). Specifically, this investigation was focused on the ability of a 15-session intervention, including three collaborative photo album sessions and 12 sessions of an adapted barrier game, to support collaborative conversational narrative telling between an individual with chronic aphasia, Mr. Lee, and a clinician partner. In using situated discourse analysis conventions to analyze video-recorded data of the 12 barrier treatment sessions, this study aimed to consider multi-modal and embodied communication utilized in conversational narrative tellings to assess patterns of narrative progression across repeated tellings. Furthermore, an elicited narrative probe was administered after each barrier treatment session (12 total) in order to assess progress in narrative abilities across tasks (i.e., task-based elicitation versus within conversation). In order to also monitor the impact of the intervention outside of treatment conditions on communicative confidence, in line with social models of aphasia and complementary to analyses which address quality of life impact of meaningful narrative engagement (through illness narrative work), the Communication Confidence Rating Scale for Aphasia (CCRSA) (Babbitt & Cherney, 2010) was administered four times over the course of treatment (similar to its use in Devanga, 2015). This research was therefore guided by the following four questions:

1. Can the barrier treatment protocol, including game materials (i.e., photo cards), rules, and communicative goals (i.e., collaborative narrative construction using photographs) be adapted to effectively support collaborative conversational narrative tellings?

2. Will the client-clinician pair become more efficient/effective in their co-construction of narrative tellings over time; will repeated narratives yield a more stable, efficient structure over time (either becoming increasingly streamlined, or increasingly linear (closed linearity) and single-teller)?

3. Will repeated practice in co-construction generalize to narratives told during an elicited narrative probe; will narratives told during elicited narrative probes become increasingly linear (closed linearity) and single teller over time?

4. Will the participant report an impact of the intervention on factors outside of treatment conditions such as communicative confidence in everyday life, as measured by the Communication Confidence Rating Scale for Aphasia (CCRSA) (Babbit & Cherney, 2010), over the course of treatment?

CHAPTER 3: METHOD

This research was conducted using an interpretive case-study design, utilizing ethnographic methods of data collection for discourse analysis, and an additional clinical assessment tool to monitor changes in communicative confidence. Over the course of two months, three photo album sessions and 12 barrier treatment sessions were completed, using photo playing cards which were either taken by Mr. Lee and his wife, Ms. Lee, or were photographs related to Mr. Lee's life experiences, contributed by the research team. Each barrier treatment session involved playing of a collaborative referencing game called the barrier game. This game was adapted from previous research and was first utilized as the core activity of the barrier task protocol (Hengst, Duff, Dettmer, 2010) to successfully support social learning in reorganizing collaborative referencing practices between individuals with aphasia and their routine communication partners (see the Literature Review section for further information on the barrier game and its clinical utility). In the current study, the barrier task protocol and barrier game were adapted to support conversational narrative telling between a participant with aphasia, Mr. Lee, and a clinician partner (myself). All sessions were video and audio recorded to allow for a detailed discourse analysis, and all 12 barrier treatment sessions were coded in full, focused on tracking the total conversational narratives produced, characteristic features of their tellings, and evolution of repeated tellings across time. Additionally, the impact of this intervention on communicative confidence was measured using the Communicative Confidence Rating Scale for Aphasia (Babbit & Cherney, 2010), which was administered four times across the span of the study. This chapter further details information on the study participants, Mr. and Ms. Lee, the intervention protocol and design, and the procedures for data collection and analysis.

Mr. and Mrs. Lee

The single participant for this study was Mr. Lee (pseudonym). At the time of the study, Mr. Lee was 78 years old, and was medically stable at five years post onset of a left middle cerebral artery ischemic infarct. Having participated in a study of collaborative referencing through the lab three years prior, Mr. Lee and his wife, Mrs. Lee, had contacted the lab again in the Spring of 2017 expressing interest in receiving additional treatment through participation in another research study. As they were previously familiar to a portion of the research team (Dr. Julie Hengst, Jennifer Gerry, and Martha Sherrill), the information presented in this profile of Mr. Lee's communication abilities, recovery, and everyday life, has been compiled from self-

reports and information from the previous study in 2015, as well as from information gathered through both formal and informal interviews during the course of this study.

A former bakery delivery man and landlord, Mr. Lee and his wife, Ms. Lee, were retired at the time of his stroke. Although the stroke had not resulted in significant hemiparesis, it did leave Mr. Lee with symptoms consistent with moderately-severe aphasia, which notably impacted aspects of his communication, cognition, and social participation. Due to difficulty understanding and following multi-step directions and spatial relations, as well as trouble with reading comprehension, Mr. Lee was unable to safely drive and reported not taking the bus. Therefore, he typically relied on Mrs. Lee for transportation to any individual activities (such as volunteering and an aphasia support group), and their shared activities (such as family outings and dinners with friends). Prior to his stroke, Mr. Lee had also continued to take part in financial operations associated with their family's farm plot, however was currently unable to continue due to significant difficulty with comprehension and manipulation of numbers.

In initial assessment sessions, Mrs. Lee reported difficulty in understanding Mr. Lee at times, due to his frequent difficulties in word finding and paraphasias. Throughout the course of the study the two illustrated both past and recent examples of situations, resolved and unresolved, in which these circumstances had occurred. Over the five years following his stroke, Mr. and Mrs. Lee had also worked together to successfully help Mr. Lee to return to many of his pre-stroke activities, such as volunteering at a nearby hospital, attending both of their churches on a weekly basis, and participating in a variety of other social gatherings and engagements. They reported at our initial interview that he typically went bike riding with a group of friends on a weekly basis, he and Mrs. Lee visited nearby fairs and festivals, and both spent significant time with their immediate and extended family. Based on their reports during assessment sessions, Mr. Lee was also actively involved in continued speech therapy through a weekly aphasia conversation group at a nearby hospital, and through services provided by their current speech therapist, who they reported seeing a couple of times a month. Mr. Lee had additionally continued to independently pursue speech-related exercises and tasks, typically on a daily basis. At the time of the study he had recently begun to re-engage in reading, by practicing oral reading skills using children's books from a nearby public library. To organize their busy schedules, the pair reported going over their weekly calendar, which Mrs. Lee assembled and updated, together on a daily basis.

Four initial assessment sessions were conducted in the Summer of 2017, in order to re-assess Mr. Lee's communication abilities for baseline diagnostic purposes, as well as orient him and Ms. Lee to the goals and timeline of the study. Upon initial medical assessment acutely after his stroke (as reported in Devanga, 2015), Mr. Lee had been documented as having a severe receptive-and-expressive aphasia, although more recent assessments were consistent with a diagnosis of moderate-severe conduction aphasia. The research team re-administered the Western Aphasia Battery-Revised (Kertesz, 2006) in the Summer of 2017 in order to establish a current baseline for Mr. Lee. Overall diagnostic results were in agreement with those from his assessment 2015, given 8-months post-stroke, with patterns of performance indicating a diagnosis of moderate-severe conduction aphasia. When administered by the research team in 2015, Mr. Lee scored 140/200 on the auditory comprehension, 40/100 on the repetition subtest, and 50/100 on the naming subtest, all consistent with the WAB-R diagnostic criteria of moderate-severe conduction aphasia. In the current administration, Mr. Lee again showed relative strength in the auditory comprehension subtest (141/200), and a strength and modest increase of sixteen points in the naming and word finding subtest (66/100). Conversely, he showed relatively stable, marked difficulty on the repetition subtest (scoring 45/100), with all scores again indicating behavioral patterns and characteristics consistent with a diagnosis of conduction aphasia. The research team also administered and scored the Boston Diagnostic Aphasia Exam Profile of Speech Characteristics in order to assess fluency during picture description and spontaneous speech. In connected speech, Mr. Lee produced long, maximum length of utterances (7+ words) with relative consistency, showed a strength in intact expression of melodic line during extended utterances (score of 7), and utilized a wide variety of grammatical structures (score of 7). Mr. Lee had difficulty with articulatory agility (score of 4), and also had marked difficulty with word finding (a score of 2). Semantic paraphasias were frequently present, and often perseverated, in his connected speech (a score of 5). Overall, the results of the Profile of Speech characteristics indicated the presence of a fluent aphasia, again in agreement with both the diagnostic characterization of his connected speech in Devanga (2015), as well as the diagnostic criteria of conduction aphasia established using the WAB-R.

In relation to the salient disruptions in his communication and their daily lives following his stroke, Mr. Lee frequently voiced his commitment to improving his language and communication abilities, however, he expressed serious frustration with the slow nature of his

progress. In addition to this internal frustration, Mr. Lee also express1ed his pronounced frustration in the frequent quickness of other conversational partners to forgo conversation when communicative breakdowns occurred, despite his want and readiness to maintain and continue interactions with those around him. Although Mrs. Lee highlighted noted improvement in his ability to maintain longer interactions with family and with friends at church, Mr. Lee often maintained that he did not see improvement to the same extent, and that he felt his current language skills should be better.

Intervention Protocol

This intervention included a total of 15 sessions, 12 barrier treatment sessions and three photo album sessions, the goals and timing of which are illustrated in figure 3.1. In each barrier treatment session, an adapted collaborative referencing game known as the barrier game, was played between Mr. Lee and a clinician partner (myself). Each barrier treatment session was split into three parts: ten minutes of captioning Mr. Lee's photo cards, a maximum of six rounds of the barrier game, and a final, ten-minute elicited narrative probe. Photograph playing cards used in the barrier game during these sessions were a mixture of Mr. and Mrs. Lee's personal family photographs and photographs contributed by the research team, all of which were personalized to Mr. Lee's life experiences and interests to enhance the relevance of game topics to his everyday life. The remaining three photo album sessions were interspersed throughout the course of the intervention (sessions 5, 10, 15). During these sessions, a photo album was created by Mr. Lee, Mrs. Lee, and the research team, using the photographs which Mr. and Mrs. Lee had brought in for barrier treatment sessions across the course of the intervention.

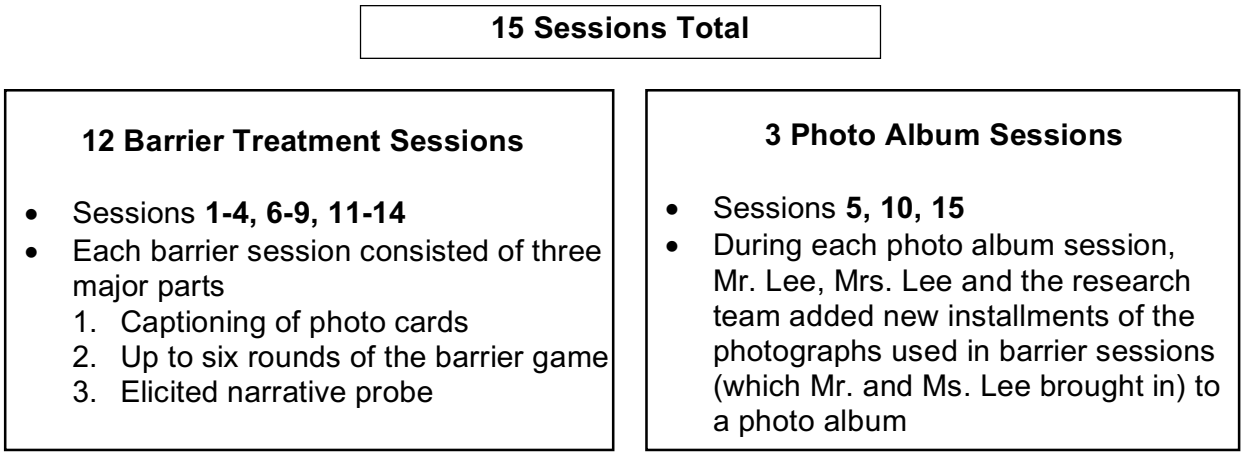


Figure 3.1. Overview of the intervention used in this study, including 15 total sessions

All barrier treatment and photo album sessions were video and audio recorded in full. An additional live video feed was sent to an observation room during sessions, to allow Mrs. Lee and the remainder of the research team to watch sessions and take field notes remotely. This live feed also allowed for Mrs. Lee to collaborate with the research team during treatment in real time, occasionally serving as a resource for information which the moderator could relay to Mr. Lee and the clinician during treatment sessions. An in-depth description of barrier treatment sessions and materials used follows below.

Barrier Treatment Sessions. Each barrier treatment session consisted of three parts: captioning of Mr. Lee's photos, up to six rounds of the barrier game, and a final ten-minute elicited narrative probe led by the moderator. These sections will be detailed below, beginning with a description of the captioning and elicited probe, and ending with an in-depth review of the barrier game rules and materials.

Captioning of Playing Cards. The first ten minutes of each barrier treatment session were designated as time for captioning of new playing cards being cycled into the game. The goal of captioning playing cards was to provide Mr. Lee with an additional communicative support which he would be able to use throughout the collaborative referencing game. Additionally, discussion during the activity (while coming to consensus on a caption) was helpful in orienting the players to certain aspects of the photos or what they represented before the start of the game. Per instructions of the moderator, short, one-sentence maximum captions for each photograph were decided upon by Mr. Lee and myself and subsequently written on the back of each of his playing cards by the moderator. The captioning portion of initial sessions varied, taking just under an hour to complete in the first session, as all 12 playing cards were captioned in order to prepare enough cards to complete the barrier game. In subsequent sessions, the activity remained consistent, taking 10 to 15 minutes to complete with captioning of only the six new playing cards introduced (as six cards from the previous session were repeated, and had already been captioned).

Elicited Narrative Probe. In the last 10 minutes of each barrier treatment session (following the playing the of barrier game), the moderator engaged Mr. Lee in an elicited narrative probe, with the goal of eliciting at least three distinct narratives. Narratives were elicited in this distinct format to provide contrast with those told in the context of the barrier game, allowing for comparison of their characteristics both across sessions and across activities.

During this activity, the moderator removed the playing boards, barrier, and the clinician's set of photo cards from the table, spreading Mr. Lee's captioned set of 12 playing cards used in that game within reach. The moderator then prompted Mr. Lee to pick a card or a couple of cards to use in helping him tell a story about something that had happened that week, in the past, or something he is going to do this week. In later sessions, the moderator was encouraged to draw on previous knowledge of the story behind pictures (e.g., the vacation from the previous summer), or knowledge provided from commentary by Mrs. Lee in the observation room during the sessions (e.g., a wiener-roast they would attend at a friend's house in the coming weekend) to elicit and support a narrative telling. During the narrative probe, I made an effort to maintain a minimal role in narrative telling, however I entered the telling either when prompted by Mr. Lee to participate or when the conversation came to a stand-still.

The Barrier Game. Within each barrier treatment session (after the captioning of playing cards and before the elicited narrative probe), a maximum of six rounds of the barrier game was played, making up most of the time in each barrier treatment session. A review of the barrier game and the materials used and their preparation is further detailed below.

Barrier Game Materials. Materials used to play the barrier game in each session included two playing boards, a low barrier, and two identical sets of playing cards (12 in each set, one set per player). Two identical playing boards, each numbered 1-12 were set in front of each player by a moderator (graduate student Jennifer Gerry), and a low barrier was placed in the middle of the table, as to obstruct each player's view of the other's playing board, while still allowing players to use gestures, facial expressions, and other visual cues or communicative devices freely. Each player was given a set of identical playing cards, comprised of 12 photographs each.

(a) Selection and Preparation of Playing Cards: Playing cards used in the barrier game included Mr. and Mrs. Lee's personal photographs, and clinician-contributed photographs which were chosen based on Mr. Lee's life and interests. Therefore, all playing cards were personalized to Mr. Lee, in order to increase the relevance of the game topics and materials to his interests and everyday life. As the intervention progressed, the research team used photo album sessions to look through the full. To prepare playing cards for the barrier game, the researcher team printed and laminated all photographs contributed by Mr. Lee and by the research team.

(b) Playing Card Sets: In every barrier game treatment session, two copies (one for each player) of a distinct set of playing cards was introduced. Each copy of playing card sets included twelve playing cards total, comprised of six personal photographs contributed by Mr. and Mrs. Lee, and six clinician-contributed photographs personalized to Mr. Lee. Overall, the majority of the playing cards used in these sets were new to Mr. Lee (either recently taken with the camera provided to them by the research team, or clinician-contributed cards), however some were not: six were Mr. Lee's playing cards used in a previous study and six were created from family photographs of a previous vacation which Mr. and Mrs. Lee suggested they bring in to be played with. Across the 12 distinct sets of playing cards played with over the course of the intervention, a total of 78 distinct playing cards were used. A table detailing this cycling of playing cards and creation of new sets can be found on page 30.

Thirty-six of the cards were considered *clinician-contributed playing cards*, and depicted non-personal photos (i.e., not family photographs or photographs taken by Mr. Lee) of people, places, and events that might serve as familiar experiences or conversation topics to Mr. Lee, based on his interests and personal history (e.g., soldiers in the Korean War, the Illini basketball stadium, Matlock). These cards were systematically controlled for topic, and represented a total of 18 targets, or topics, with each target (e.g., the Illini basketball stadium, the Grand Hotel on Mackinac Island, Matlock) being given two distinct photographic views (i.e., differing in view, time of day, scene), resulting in the total 36 distinct playing cards. View A of each target was used in the first half of the treatment sessions, after which, when all 18 targets had been used twice (after the seventh treatment session), view B of each target was introduced, in the same order.

The remaining forty-two cards considered *Mr. Lee-contributed playing cards*. These cards depicted photographs that either Mr. or Mrs. Lee took during the span of the study using the digital camera provided for them (N=32), photographs from a recent family vacation (N=4), and photographs that were used in a previous research study through this lab in which Mr. Lee had been a participant (six photographs from Mr. and Mrs. Lee's home collection, used only in the first treatment session of this study). The events or topics in these cards were not systematically controlled as the clinician-

contributed cards, to allow Mr. and Mrs. Lee the opportunity to continually take and bring in new photographs and introduce new topics during the two-month span of the treatment sessions. However, Mr. and Mrs. Lee often took multiple photographs of the same event they attended (e.g., the farm festival), or of the same setting (e.g., the garden in their backyard), which often resulted in repetitions of events, people, and places represented in photo cards used across sessions.

Barrier Game Rules. To play the game, the two players (Mr. Lee and myself) were seated on either side of the low barrier and alternated roles of director and matcher, with the goal of each round being to work together to match their sets of playing cards in identical order on the playing boards. The director of each round placed their playing cards directly on top of each number on their playing board, each card corresponding with a number. The matcher placed their cards in the area surrounding the playing board as to leave the numbers and cards unmatched, allowing a full view of their board. Before each round, the moderator reminded players of the goal of the game, and encouraged the players to draw on any communicative resources as needed and speak and interact freely, the only rule being neither player was allowed to look over the barrier at the other player's board during the game. To reinforce this and remind the players of the rules of the game, the moderator gave the same instructions prior to the start of each round (i.e., up to six times per session). An excerpt of the moderator's instructions follows below:

"The goal of the game is for the director (point to director) and the matcher (point to matcher) to work together so that their 12 playing cards end up placed on the same numbers on their boards. To do this, you may use words, gestures, facial expressions, and the caption written on the back of your cards as clues to help you. There is only one rule: you may not look over the barrier at the other player's board. Feel free to talk about stories, memories, or anything else these pictures remind you of while you play the game."

After matching their boards, the pair was instructed to signal to the moderator, who then re-entered the room to check the accuracy of their final card placements. Upon re-entering, the moderator removed the barrier to allow the players to view both playing boards, and provided feedback to the players by verbally reporting their accuracy each round.

Table 3.1

Photo cards used in each of the 12 barrier treatment sessions and each of the three photo album sessions

Session Number	**Session Type**	Card Set Used During **Barrier Treatment Sessions** (12 playing cards per set)		Photo Cards Added to **Photo Album**
		Clinician Contributed Playing Cards (1-36a)	*Mr. Lee contributed Playing Cards* (1-42b)	
1	Barrier	1a-6a	1b-6b	N/A
2	Barrier	*REPEAT*	7b-12b	
3	Barrier	7a-12a	*REPEAT*	
4	Barrier	*REPEAT*	13b-18b	
5	Photo Album	N/A		Cards 1b-12b
6	Barrier	13a-18a	*REPEAT*	N/A
7	Barrier	*REPEAT*	19b-24b	
8	Barrier	19a-24a	*REPEAT*	
9	Barrier	*REPEAT*	25b-30b	
10	Photo Album	N/A		Cards 13b-24b
11	Barrier	25a-30a	*REPEAT*	N/A
12	Barrier	*REPEAT*	31b-36b	
13	Barrier	31a-36a	*REPEAT*	
14	Barrier	*REPEAT*	37b-42b	
15	Photo Album	N/A		Cards 25b-42 b

Photo Album Sessions. In addition to the twelve barrier treatment sessions, three photo album sessions were interspersed equally throughout treatment, in sessions 5, 10, and 15. The primary goal of photo album sessions was to create a photo album using the photographs taken by Mr. and Mrs. Lee over the course of the study. A secondary goal of photo album sessions was to gain perspective from all members of the study on narratives which had been previously shared, as a form of narrative consolidation. Additional clinical measures (the CCRSA) used to address the impact of this intervention on communicative confidence outside of treatment conditions, were also administered at the end of these sessions, in order to evenly space the time between each data collection point. Apart from the scores of the CCRSA, and data taken in researcher's logs after each session on narratives reviewed or on Mr. and Mrs. Lee's impressions of his communication, video data from photo album sessions were not further analyzed for the purposes of this study and analysis.

Photo album sessions did not include a set protocol as in barrier task sessions. Rather, the group mutually came to consensus on how the photo album would be constructed over the course of each session. Sessions varied in length, and often involved novel input and knowledge from participants altering the collective understanding of pictured people, places, and events. Members of the group offered their own personal anecdotes throughout each session, and each member took on certain roles within the activity. Typically, Mr. and Mrs. Lee first decided how they would like photographs to be grouped, and Jennifer (the moderator in barrier treatment sessions) would place photographs in the album alongside a short caption the group came up with. Mrs. Lee played a particularly integral role in photo album sessions, providing many developed, and often lengthy, personal accounts of photograph participants and events, having taken many of them herself. In almost all cases, the final decision for any grouping or caption was defaulted to Mr. and Ms. Lee, as the photographs and final album were theirs.

Data Collection

Four major sources of data were collected across sessions for analysis; live-scoring of completion and percent accuracy of barrier rounds, recorded video data of all treatment sessions, ethnographic field notes in the form of researchers logs, and live-scoring of the clinical CCRSA measure given in four sessions. Details pertaining to each form of data collected, and its use are described below.

Barrier Task Completion Data. In order to address in part whether the barrier game could be adapted to support conversational narrative telling, data on the completion and accuracy of the barrier game was taken by the moderator after each round (reported in Table 3.3). Completion and accuracy of the final card configurations (i.e., if the arrangement of playing cards on each board was identical) was reported to monitor completion of and the pair's effectiveness in playing the barrier game. After each round of the barrier game, the moderator re-entered the room to check the accuracy of the final card placement on a pre-made, outlined data sheet specific to each session (see Appendix I).

Video Data. All sessions were video and audio recorded in their entirety to support later in-depth discourse analysis of conversational narratives and key characteristics of their tellings. Sessions were taped on multiple cameras, from multiple views (each able to view both players simultaneously), to ensure complete recording of sessions, as well as to obtain differing views of the therapy room to capture the full space and as many interactional details as possible. These multiple views were used as alternative references during transcription of narrative probes and coding of conversational narratives, and often allowed for more comprehensive, situated viewing and analysis of the interactional context in which they occurred.

Researcher's Logs. Three members of the research team (Jennifer Gerry, Sara Getz, and myself) maintained researcher's logs of their field notes, in order to detail and preserve information and interactional data which occurred outside of the therapy room (and therefore was not recorded on video). Broadly, logs included data gathered through informal interviewing of Mr. and Mrs. Lee by the research team before and after treatment sessions, interactions with and commentary made by Mrs. Lee in the observation room during barrier sessions, as well as the researcher's impressions of each session (e.g., of my supportiveness as a partner, Mr. Lee's level of frustration or difficulty). These data were collected to supplement recorded video data in providing further context of treatment sessions and interactions. Therefore, they were often used as reference during the data analysis phase to more reliably interpret and characterize situated interactions and conversational narratives (e.g., an indexed kernel 3 Cubs narrative is coded based on notes of a conversation just prior to the session on the Lee's plans to watch the Cubs last World Series game that night).

Clinical Assessment Measures. The last major source of data collected includes the scores of the CCRSA (see Appendix E), taken at four, evenly distributed data collection points

across the span of the study. The goal of collecting CCRSA scores was to address the impact the intervention on Mr. Lee's self-reported communication confidence outside of treatment conditions. The CCRSA was initially developed and validated by Babbit and Cherney as a 10-question assessment of the current state of communicative confidence of individuals with aphasia (see Babbit & Cherney, 2010). Participants rated their communicative confidence on a scale of 0-100, presented in ten-point increments, with each number representing their "percent confidence." During the current study, Jennifer Gerry administered this measure initially at the last assessment session (two weeks prior to the start of treatment sessions) and subsequently at the end of each photo album session (treatment sessions 5, 10, and 15). During the administration, Jennifer presented each of the ten questions to Mr. Lee and he marked his response (in percent confidence) by drawing a hatch mark in black pen on a full-page scale marked 0-100, divided into increments of ten. All participants in the assessment and photo album sessions remained in the room during the administration of this measure.

Data Analysis

Analysis of the video and audio data from barrier treatment sessions was completed in three major phases: transcription of narrative probes, consensus coding of conversational narratives within full barrier treatment sessions, and an analysis of repeated tellings of narratives across the twelve barrier treatment sessions. This detailed discourse analysis of the data set was completed by a team of five undergraduate research assistants and two graduate research assistants (including myself), all of whom were trained by me. Data analysis procedures regarding conversational narratives were guided by this study's first three research questions, and therefore aimed to assess the ability of the barrier game to support conversational narrative tellings, identify key characteristics (specifically tellership and linearity) of tellings, and track the progression of these characteristics across repeated tellings and treatment session activities (i.e., during narrative probes). Additionally, analyses of inter- and intra-rater agreement, and an analysis of treatment fidelity were completed.

Phase 1: Transcription of Narrative Probes. Transcription of all twelve elicited narrative probes prepared the recorded narrative probe data to be used as a supplemental resource during coding of conversational narrative dimensions, and the process was additionally used to familiarize research assistants involved in data analysis with the video data and discourse analysis conventions. All twelve narrative probes were transcribed by a team of five

undergraduate research assistants, trained by me. Transcription of probes allowed for familiarization of research assistants with the data set, the goals of this study, and situated discourse analysis conventions (i.e., attending to use of gestures, environment, aspects of tone to convey meaning). Multiple steps were taken to prepare research assistants for transcription including a) transcription goals and conventions were introduced in an initial lab meeting b) transcribers were given a written reference for transcription conventions used in situated discourse analysis of previous lab projects and c) each transcriber completed a practice transcription of an hour of video data, which I reviewed, either utilizing assessment session tapes from this study, or video from previous barrier game studies. After completing this preliminary transcription of at least an hour of video data, research assistants were assigned to their respective probes to complete transcription.

Transcriptions of each probe underwent a three-pass process; an initial word-pass by a single transcriber, a second word and gesture pass by the same transcriber, and a consensus session with me. During consensus, I watched the video alongside the transcription and discussed any modifications to the transcript with the initial transcriber, in order to maintain consistency across the transcription process. Transcription conventions followed those as detailed in Hengst (2001) (see Appendix H), including interlocutor's initials, accompanied by their verbal utterances and communicative gestures intertwined across video time, and were aimed to support detailing of contextualized communicative interactions.

Phase 2: Consensus Coding Process. In order to address the ability of the barrier game to support conversational narrative telling, as well as understand the characteristics of narratives told across time, all twelve barrier treatment sessions were coded in full to identify conversational narratives and characteristics of their telling, grounded in work by Ochs and Capps (2001), Pratzel (2008), and Hengst (2010). The goals of narrative coding directly corresponded with the first three research questions of this project: a) to identify total number of full and kernel conversational narratives told within barrier treatment session activities in determining the ability of barrier treatment sessions to support conversational narrative tellings b) to analyze characteristics of repeated conversational narrative tellings (described under the conversational narrative dimensions section) including narrative set-up, initiator, tellership, audience involvement, and linearity of tellings across time and c) to compare characteristics of narrative tellings during narrative probes across time. Transcriptions of narrative probes

completed in the first phase of data analysis were used as additional reference for identification of conversational narratives and coding of characteristics.

Coding was completed on identical Excel sheet templates by all coders, and coding of each barrier treatment session underwent four total passes (see Appendix A for coding protocol). First, a primary coder watched the full treatment session chronologically, identifying conversational narratives, the session activity (captioning, barrier game, probe, non-task) and the video time at which they occurred, completing a preliminary color-coded transcription of each conversational narrative (see Appendix F for transcription conventions), and using that transcription as evidence which supported a) that a conversational narrative had occurred and b) the coding of key narrative characteristics, including narrative type, set-up, initiator, tellership, and linearity (described in-depth in the following sub-sections). Next, the primary coder completed a second pass of the data, watching the session for a second time in full, with two objectives a) to confirm coding of conversational narratives from the first pass and b) to identify and code for characteristics of any conversational narratives which had not been identified during the first pass. In a third pass of the coding protocol, I watched each session in full alongside the primary coders excel sheet, and made notes on a separate excel sheet detailing changes I might make in the coding of each conversational narrative, instances I did not believe met the standards to be considered a conversational narrative (e.g., the reading of a card caption in the past tense), and noting any possible conversational narratives which had not yet been identified. In a final consensus pass, I watched the full session alongside the primary coder, and we discussed and solidified any changes to the overall coding sheet, in the coding of each conversational narrative. If, after three times watching a possible narrative episode, a decision on whether or not a narrative had occurred could not be made, the narrative was eliminated. In instances where it was agreed that a narrative had occurred, but the consensus team was unable to come to an agreement on a dimension of coding, a third party (Dr. Hengst or Martha Sherrill) was consulted for a final decision. Typically, any disagreement on narrative designation or coding characteristics was resolved through discussion between the primary and secondary coders, and it was rarely necessary to consult a third party for a final opinion.

The coding team for this project was comprised of the five undergraduate research assistants who had transcribed narrative probes, and the two graduate students who participated in treatment sessions (Jennifer Gerry and myself). All coders underwent training, led by me,

prior to coding barrier treatment sessions. Coders were first introduced to the coding dimensions in an initial hour-long lab meeting, and subsequently were trained in pairs in separate, two-hour training sessions. During these training sessions, I reviewed all narrative coding dimensions with each pair, and a completed coding exemplar of 15 minutes of video from a current treatment session was watched, explained, and discussed between the group. Next, the following 15 minutes of video was coded by each research assistant, with my supervision, in order to address any final questions on the coding dimensions and process. All coders were provided with support throughout the coding process; given a written reference detailing the operational definitions of coding dimensions (see Appendix B) and corresponding examples which I had previously coded from barrier treatment sessions, and all had access to the coding sheet of a treatment session which I had previously completed. Coders were encouraged to clarify any questions with me in the lab as they progressed through coding of their respective sessions, and coders were scheduled to overlap time in the lab with other members of the project, in order to provide multiple references regarding coding discussions. Any frequently asked questions were also addressed at bi-weekly lab meetings, with the entire research team present.

Identification of Conversational Narratives. Once a coder identified any core element of a possible narrative telling (e.g., the verbal or nonverbal presentation of a displaced time), a transcription of the narrative telling was completed. This included transcription of the core narrative discourse (e.g., time-specific events and evaluations), as well as elements of the surrounding narrative discourse which might further contextualize the telling (e.g., discourse which did not include events or evaluations, but which might be considered background information or a narrative "set-up," similar to Labov's narrative elements, prior to the presentation of the first event). This transcription aided each coder in identifying the narrative category each telling fell in line with.

Narrative Transcription Guidelines. A turn-by-turn transcription was completed for each narrative telling. To mark each turn taken between speakers, each interlocutor was marked by two back slashes and their first initial (i.e., //L), followed by a transcription of their verbal utterances and verbal and non-verbal gestures. Verbal utterances were transcribed using standard orthography, including fillers, phonological errors, and phoneme prolongations (//H He was stuck waaaaay out there.) Common contractions and abbreviated forms were transcribed using vernacular spellings (e.g., gonna'). Non-verbal and verbal gestures were integrated into

the transcript with a description in parentheses, and placed into the transcript corresponding with the time at which they occurred (e.g., //H (Holding picture of Carle at night) Yeah that was really (sarcastic eye-roll) fun.) Reported speech was indicated with use of quotation marks, and aspects of intonation were included, using questioning (?), continuing (,), and exclamatory (!) intonations, and with bold text indicated a word or utterance which was emphasized by the speaker (//H We had **a lot** of fun).

For the purposes of this document, transcripts will be presented with identical content as their initial transcriptions used for analysis, but with slight modification to the presentation of turns in order to best view each narrative telling, and occasional highlighting of one particular aspect of a transcript excerpt. Detailed transcription keys for both the original data analysis and the data excerpts used in this document are presented in Appendices F and G, respectively.

Coding of Full and Kernel Conversational Narratives. Broadly, all conversational narrative tellings were separated into categories of *full conversational narratives* and *kernel narratives*. Components of each operational definition of conversational narrative categories were based particularly in the verbal and nonverbal presentation of events and evaluations during the telling. Therefore, core narrative elements which anchored the presence of conversational narrative tellings, were events (in their transcription, coders highlighted first events in blue text and any subsequent events in green text) and evaluations (which coders highlighted in purple text). Events (displayed in Table 3.2 in blue) delineated what happened in a narrative, and were defined utilizing the operational definition presented in Pratzel (2008): "Past, future, or hypothetical action occurring at a specific time" (31). Evaluations (displayed in Table 3.2 in purple) provided context for why these events mattered in the scope of a narrative, and included mention of mental states or those discursive actions that conveyed opinions or attitudes, serving to remark on the purpose, or consequences of descriptions or events presented in the scheme of a full or kernel narrative telling (Labov, 1997, Pratzel, 2008, Hengst, 2010). Evaluations could either be presented verbally (e.g., "We had a lot of fun") or nonverbally (e.g., through an eye-roll gesture following telling of an event).

A *full conversational narrative,* adapted from previous work done by Pratzel (2008) and Hengst (2010), was defined minimally as an event presented in a specific, displaced time from the current moment of telling, which was connected to a related evaluation of that event, or a second related event also displaced from the current moment of narrative telling. In contrast,

kernel narratives were narrative episodes which contained certain elements of full conversational narrative tellings, but did not contain the components required for a full conversational narrative. Five distinct categories of kernel narratives were discerned in total: event-only, evaluation-only, indexical, abandoned, and habitual, and their operational definitions as well as exemplars pulled from the data are presented in Table 3.2.

Table 3.2

Types of kernel narratives: definitions and examples

Kernel Type	Definition	Example
1 [Event only]	Presentation of one event [blue] in a specific displaced time, however no second event or evaluation follows	J: (gesturing back to observation room) We were just talking about how there's so much construction by [Alma] now, too, so L: Yeah H: Oh J: With all the Green streets torn up so
2 [Evaluation only]	Time-specific description (e.g., description of photo card) with a related evaluation [purple], however no events presented	H: Farming festival I think we called it. With the tractor and plus something else probably. L: Yeah And it's a-all these people, wives comin' look at these H: Yeah! L: Cranford, kranner, crapford H: Tractors? L: Mhm yeah (laughs) we had a lot of fun
3 [Indexical]	Indexical narrative; a well-known narrative is condensed into an indexed form, which is then referenced	H: Like that time you fell off the bike. L: Yeah
4 [Abandoned]	Abandoned attempt at narrative telling; initiator makes clear there is a narrative to be told, however the attempt is abandoned [red]	L: (holding picture of granddaughter visiting during the summer) Looks like they were, guess we were gonna', I can't say, you'll be alright
5 [Habitual]	Telling reflects habitual events that are displaced in time, not one single or specific event	H: Yeah like that neighbor right across the lake from you? L: Yes H: Oh so do they have people over a lot in the summer? L: They **used** to, not so much H: Not so much anymore? L: But yeah they do occasion

Coding of Contiguous Narrative Tellings. Distinct occurrences of narrative tellings in treatment sessions often occurred in immediate succession. To distinguish distinct narratives within the same stretch of discourse, coders were instructed to begin coding of distinct narratives when a change in theme occurred from the previous telling. Following this instruction, certain kernel narratives that might otherwise be considered a set-up for a full narrative telling were often also coded as their own, distinct kernel narrative telling if there was a marked thematic change (e.g., separate coding of Mr. Lee's "12 cookie-man" kernel narrative (1) and Hannah's subsequent "clinic kitchen brownies" full narrative)

Coding of Conversational Narrative Characteristics. After the identification and preliminary transcription of conversational narratives (both full and kernel categories), narratives were further coded for their narrative characteristics: initiator, tellership, audience involvement, and linearity, described below. All narrative tellings were marked for the session activity in which they occurred; during captioning, barrier game rounds, narrative probe, or non-task (i.e., between rounds of the barrier game when the moderator was in the room to check accuracy). A start time corresponding with the start of a narrative telling on the video was provided for each narrative telling, to serve as a reference point for future passes of narrative coding. Narrative tellings were also assigned a short theme in order to support identification of repeated tellings across sessions and allow for later-stage analysis of change in their narrative characteristics.

Coding Narrative Set-Up. Narrative set-up was considered the context surrounding the initiation of a narrative telling, which could be coded either as elicited or non-elicited. *Elicited* narrative tellings were those initiated in response to a question prompt from another interlocutor (e.g., "What did you do at Carle group this week?") *Non-Elicited* narrative tellings were all tellings not initiated in response to a question prompt by another interlocutor. Although the specific context of the initiation was not coded, these narratives could be initiated in a variety of communicative contexts, such as spontaneously (not thematically related to preceding discourse) or in response to preceding dialogue which was thematically related to subsequent narrative telling (e.g., conversation about the boat photo card serves as a set-up for Hannah's sea sickness narrative).

Coding Initiator. The initiator of a narrative could be coded as any interlocutor physically present in the video or therapy room, and was defined as the interlocutor who presented the first event of a narrative. Narratives typically had a single initiator, however, could

have multiple initiators if multiple interlocutors presented the first event of a narrative together. Initiator was marked on the coding document using shortened versions of each interlocutor's name (e.g., L for Mr. Lee, Ha for Hannah).

Coding Tellership. The operational definition of tellership drew upon Ochs and Capp's (2001) work on narrative dimensions, where tellership of narratives ran on a spectrum from single teller to multiple tellers. A teller in a narrative was defined in this study as any interlocutor who explicitly contributed a *novel* event or evaluation related to the narrative telling. Tellership was marked on the coding document using the same conventions as initiator.

Coding Audience Involvement. Each individual present in the video during a conversational narrative was coded for their level of audience involvement, based in the definitions in Pratzel (2008), which included active, supportive, and minimal. *Active audience members* were those who asked clarifying and leading questions during the telling, but who did not contribute a specific, novel event (not a teller). *Supportive audience members* provided verbal or nonverbal commentary that was "responsive, encouraging, and appreciative" (p. 34). This commentary could be linguistic commentary (e.g., "Wow!" or through backchannel supports such as repetitions), non-linguistic (e.g., "Mhm" or through responsive laughter), or non-verbal (e.g., through maintaining eye contact, through responsive facial expressions). Audience members coded as *minimal* appeared disinterested or were engaged elsewhere during narrative tellings (i.e., not making eye contact, distracted), and were not involved in the narrative telling apart from physically being a part of the environment. A coding of minimal often occurred when Jennifer, the moderator, was in the room during a non-task narrative telling, but was otherwise engaged in checking the camera battery or assembling the barrier boards. All audience members could be coded as multiple levels of involvement during a narrative telling, if their level of involvement evolved during the scope of a narrative telling.

Coding Linearity. The operational definition of linearity drew also drew upon Ochs and Capp's (2001) work, where linearity of a narrative telling could fall anywhere on the spectrum between entirely open or entirely closed. Linearity was defined as the degree to which a narrative telling followed a temporally linear progression of events or causal events and evaluations, and could be coded as open or closed. Narratives coded as having *closed linearity* were those in which events and evaluations preceded and followed each other in a single temporally related (e.g., "I parked the car in like a parking lot a block away and then when I went

to get back in the car…") or causally related manner (e.g., "We were all just eating cookies in the other room, they're really good"). Narratives displaying *open linearity* were tellings in which event and evaluations, although related by narrative theme, were ordered disjointedly in relation to time and cause, and therefore not presented in a single linear progression. The three core explanations for this open as presented by Ochs and Capps (2001) were also detailed on the coding dimensions reference sheet, and included confusion, disagreement, and memory lapses.

Coding Theme. Following the completion of all other coding categories, coders were asked to assign a theme to each narrative telling, which consisted of 1-10 words that described the overarching theme of the narrative. This category was used to keep track of repeated narrative tellings over the course of the same session (described further in data analysis addressing narrative retellings). All narrative retellings within a session (e.g., the "vacation car" story is referenced in the first barrier game round, and repeated and elaborated on in the fourth round) were assigned the same theme, in order to support tracking of repeated tellings. As the coding team consisted of seven individuals, it was not required that themes or retellings across sessions were identical, as the general theme and accompanying transcription provided enough direction to either confirm or reject a retelling.

Phase 3: Analysis of Narrative Retellings. After completion of narrative coding across barrier treatment sessions, narrative retellings within and across sessions were identified by theme. The goal of this stage of analysis was to address the third research question of this project, regarding the progression of narrative characteristics, specifically tellership and linearity, over multiple tellings. In order to track narrative retellings, myself and a research assistant, Erin, who had been involved in transcription and coding, created an Excel spreadsheet matrix (see Appendix C for example) to show *major narrative themes* across sessions (e.g., Carle), and *sub-themes* which indicated a repeated telling (e.g., Carle Wednesday group). In order to complete this process, I first compiled a list of possible themes based on my knowledge of the data, in order to simplify the process of identifying certain retellings. Subsequently, Erin read through the coding sheets of three sessions at a time, chronologically, in order to gain a general understanding of the conversational narrative themes represented. Next, she created distinct spreadsheets within the same Excel file which represented the most discernible major themes and began to go through sessions and conversational narratives coded, in chronological order and one at a time to identify retellings. I was typically present during this process, and collaborated with

her to solidify major narrative themes and sub-themes based on my knowledge of the narratives themselves, as well as the treatment session topics and cycling of playing cards.

In the identification of these retellings, narratives were considered either a) retellings of and subsequent narrative references to *full narratives* (e.g., 12 Cookie Man at Carle volunteering) or b) retellings of and narrative references to *habitual kernel narratives* (the only kernel narrative category which also could involve telling of multiple events and/or evaluations) of the same theme (e.g., getting lunch each week at Carle volunteering). Within each major theme spreadsheet, full coding rows from completed session coding sheets were copy and pasted into the matrix (see Appendix C). Each distinct, major theme spreadsheet was organized in two ways a) conversational narrative tellings represented in chronological order (i.e., first occurrence in the first treatment session at the top of the sheet and last narrative occurrence in the last treatment session at the bottom) and b) each row of conversational narrative data was color-coded to correspond with the specific sub-theme of the telling (e.g., 12 Cookie Man tellings were in red and Carle lunch habitual tellings in blue). This system allowed for identification of overall number of repeated tellings of conversational narratives of the same subject, and for viewing of trends in type, tellership, and linearity dimensions across time and repeated tellings.

Analysis of Intra-Rater and Inter-Rater Agreement. Analyses of intra-rater and inter-rater agreement on narrative coding data were completed in the Spring of 2018. For both assessments of reliability, a point by point analysis was completed of the original and new coding data. The number and percentage of narratives identified in the original narrative coding data which were missed in the agreement pass were calculated, and any new narratives identified in the agreement pass were counted. Values reported for the agreement across narrative characteristic coding categories (i.e. narrative type, activity, elicitation context, initiator, tellership, and linearity) represent the percent of mutually identified narratives matched between the original and agreement passes. Narratives were considered to be mutually identified when they included largely overlapping transcriptions of narrative discourse, were coded as occurring during the same stretch of video clock time, and were labelled as a similar narrative theme (e.g., jet ski on vacation, jet skiing with daughter).

Intra-Rater Agreement. In order to assess intra-rater agreement, a research assistant from the original coding team was re-trained on narrative coding dimensions, using the same protocol and materials used in training during the original coding. The protocol therefore

included three hours of training on coding conventions and narrative dimensions, led by me, using materials (multiple written references for directions and operational definitions and transcript and coding sheet exemplars) used in the original training sessions. She subsequently re-coded three hours of video data on which she had served as the original primary coder and I had served as the consensus coder (one full session and one-half session totaling to approximately 12.5% of the barrier treatment session video data), following the exact procedures used during the original data analysis. She re-coded barrier treatment session two in full, which had originally been coded in November of the previous year, providing a contrast to assess agreement between a session which had been coded at the beginning of the coding process during data analysis. She then re-coded an hour of treatment session eight, which had undergone consensus in January, at the end of the coding process during data analysis. In line with the protocol for the original coding team, I was available for questions and clarifications throughout her completion of the coding, and I served as the consensus rater for both sessions, in order to maintain consistency between procedures used during original coding and data analysis, and inter-rater agreement coding. Results of this agreement analysis are presented below in table 3.3, and descriptions of each coding dimension assessed can be found beginning on page 38. Agreement was assessed for the identification of common narratives, and coding of the narrative type, session activity, narrative set-up, initiator, tellership, and linearity. Note that for narrative type to be considered in agreement, mutually identified narratives had to have been coded either both as full conversational narratives, or as the same kernel narrative type (i.e., event-only, evaluation-only, indexical, abandoned, or habitual) in both the original and the agreement coding pass.

Overall, inter-rater agreement was high, ranging from 76% agreement to 94% agreement, and with five out of the seven categories showing agreement better than 90%. The lowest agreement score present in the intra-rater analysis was the 76% agreement in coding tellership. Upon further analysis, 18 of the 23 instances in which tellership of narratives was not coded the same were due to a common underlying factor; discrepancies between coding either a single or multiple tellers on a mutually identified narrative. Therefore, it was often the case that one teller was identified correctly, however tellership overall was not in agreement as additional interlocutors were also coded as a teller.

Table 3.3

Intra-Rater Agreement Data

Narrative Identification	Number	Percent Agreement
Total Narratives Identified in Original Pass	95	N/A
Additional Narratives Identified in Agreement Pass	9	N/A
Narratives Re-Identified in Agreement Pass (Mutually Identified Narratives)	89/95	94%
Coding Dimension Assessment (Out of Mutually Identified Narratives)		
Narrative Type	80/89	90%
Session Activity	83/89	93%
Narrative Set-Up	82/89	92%
Initiator	81/89	91%
Tellership	68/89	76%
Linearity	76/89	85%

Inter-Rater Agreement. In order to assess inter-rater agreement, I trained a novice coder to complete narrative coding on a barrier treatment session, using the same training protocol used during the original coding analysis. This coder was known to me and had previous knowledge of the research goals of this project, but was not a member of the research lab and reported to not have other significant experience in or knowledge of the coding dimensions or video data used in this study. Training was completed in one day over the course of four hours, which was judged to be comparable to the narrative dimensions exposure given to the original coding team (i.e., through an initial lab meeting and a subsequent two-hour long training session, in pairs). I first gave a brief review of the study and data, and then explained all coding procedures and dimensions in depth. Subsequently, she and I watched 30 minutes of session data together, identifying and coding conversational narratives progressively. During training, I also utilized the exact excerpt and transcription of video data used in initial coding team training sessions to illustrate and scaffold the current, novice coder in learning coding of conversational narratives and dimensions. She was additionally given written references (the same as given to the intra-

rater agreement coder) for coding procedures and conventions to use during training, and to keep for reference when coding. I assigned her to code a session which I felt was representative of the data as a whole, also corroborated by individuals who had participated in data collection and therefore had exposure to all barrier treatment sessions. Qualifications for this session also included that a) it was not the first or last barrier treatment session and b) six rounds of the barrier game were completed during the session. Results of the inter-rater agreement analysis are presented in table 3.4 below, and descriptions of each coding dimension assessed can be found starting on page 38. Overall, inter-rater agreement was also high, with scores ranging from 80% agreement to 96% agreement, with four out of the seven categories showing equal to or greater than 90% agreement.

Table 3.4

Inter-Rater Agreement Data

Narrative Identification	**Number**	**Percent Agreement**
Total Narratives Identified in Original Pass	56	N/A
Additional Narratives Identified in Agreement Pass	3	N/A
Narratives Re-Identified in Agreement Pass (Mutually Identified Narratives)	50/56	89%
Coding Dimension Assessment (Out of Mutually Identified Narratives)		
Narrative Type	45/50	90%
Session Activity	48/50	96%
Narrative Set-Up	45/50	90%
Initiator	43/50	86%
Tellership	40/50	80%
Linearity	45/50	90%

Assessment of Treatment Fidelity. Two assessments of treatment fidelity were considered, both of which are reported below: fidelity to the barrier game specifically, and fidelity to aspects of the adapted collaborative intervention in facilitating narrative production

overall. With regard to barrier game fidelity, sessions were examined for a) completion of six barrier game rounds and b) completion of all six rounds of the barrier game in under one hour and 15 minutes, which revealed fidelity to the barrier game was not maintained. Fidelity to the collaborative intervention overall was established through fidelity to three core elements of the intervention aimed to facilitate narrative production, reported below in Table 3.3.

Table 3.5

Fidelity to the barrier game and fidelity to the collaborative intervention

Treatment Session	Fidelity to Barrier Game		Fidelity to Collaborative Intervention			Average Accuracy of Card Placements
	Rounds Completed	Six Rounds Completed Under 1:15 Time	Mr. and Ms. Lee will take photographs throughout treatment to be used in the barrier game	Photo playing cards captioned prior to start of barrier game	Photo album of photographs used in treatment constructed by group	
1	4	N/A	Yes	Yes	*N/A*	75%
2	5	N/A	Yes	Yes		100%
3	4	N/A	Yes	Yes		100%
4	3	N/A	Yes	Yes		66%
5	*N/A*				Yes	*N/A*
6	6	1:23:00	Yes	Yes	*N/A*	100%
7	6	1:30:00	Yes	Yes		100%
8	6	1:29:00	Yes	Yes		100%
9	6	1:42:00	Yes	Yes		100%
10	*N/A*				Yes	*N/A*
11	6	1:33:00	Yes	Yes	*N/A*	100%
12	6	1:20:00	Yes	Yes		100%
13	6	1:37:00	Yes	Yes		100%
14	6	1:22:00	Yes	Yes		100%
15	*N/A*				Yes	*N/A*

CHAPTER 4: RESULTS 1

This case-study of Mr. Lee aimed to modify the collaborative barrier game intervention to further support conversational narrative telling, track the number of conversational narratives told and their characteristics, understand progressive patterns of narratives across retellings, and assess impact of the intervention on Mr. Lee's communicative confidence outside of treatment conditions. Over the course of this study, Mr. Lee attended all 15 treatment sessions, which took place over the course of two months. These treatment sessions included three collaborative photo album sessions, and 12 barrier treatment sessions, which were coded in full by a team of trained research assistants to identify conversational narratives tellings and their characteristics. A total of 24 hours of video data (12 two-hour barrier treatment sessions) underwent a four-pass consensus coding process during the second phase of data analysis. Coding of this video data was carried out in order to determine the total number and characteristics of full and kernel conversational narratives told.

Results of this analysis based on the narrative coding data will be presented in two distinct results sections below. In Results 1, primarily quantitative data from the initial analysis of coding data will be presented, corresponding with each of the four research questions which guided this study. This section will therefore include data regarding the total number of full and kernel conversational narratives identified, number of conversational narratives which were retold across barrier treatment sessions, number and characteristics of narratives told during elicited narrative probes, and data regarding changes in Mr. Lee's self-reported communicative confidence over the course of the intervention. The Results 2 section will provide further detailed analysis of narrative retellings, corresponding to research question two. Specifically, the second results section will report patterns seen in the retelling of conversational narratives as they streamlined to become increasingly indexed, and will illustrate corresponding situated analyses of certain conversational narratives pulled from this data set.

Frequency and Characteristics of Conversational Narratives

Initial analysis of the 24 hours of barrier treatment session video data utilized the narrative coding procedures and conventions described in the methods section, and was carried out by a team of seven trained coders. Through this analysis, a total of 761 narrative episodes were identified across the 12 barrier treatment sessions conducted. Of these, 265 qualified as full conversational narratives, 168 of which Mr. Lee served as a teller on (33 as the sole teller), and

217 of which I, as the clinician, served as a teller on (75 as the sole teller). Additionally, a remainder of 496 episodes of kernel narrative discourse (kernel types 1-5) were identified across the 12 barrier treatment sessions. Quantitative data on the number and type of conversational narratives found in barrier treatment session activities, as well as a breakdown of the data specific to tellership of full conversational narratives specifically are reported below:

Table 4.1

Number of narrative identified as told during barrier rounds, non-task, captioning, and the elicited narrative probe

Narrative Classification	**Narratives Identified**	**During Barrier Rounds** (% out of total CN)	**Not During Barrier Rounds**		
			Non-Task	*Captioning*	*Probe*
Full Narratives	**265**	121 (15.9%)	72 (9.5%)	43 (5.7%)	29 (3.8%)
Kernel Narratives	**496**	276 (36.3%)	73 (9.6%)	96 (12.6%)	51 (6.7%)
Totals	**761**	**397**	**145**	**139**	**80**

Out of the 761 total narrative episodes identified, 496 instances were identified and coded as one of five kernel narrative categories. These kernel narratives did not meet the operational definition for a full conversational narrative, but initiated narrative episodes which provided and could support salient clinical opportunities for further narrative work (i.e., support of a kernel narrative by other members of the conversation which would aid in developing full conversational narrative structure, see Results 2 section). Of these narrative episodes, 139 (28%) were event-only or evaluation-only kernel narratives (K1=98, K2=41, respectively) which contained only one required characteristic of a full conversational narrative, 108 (21.7%) were indexical kernel narratives (K3) which introduced an indexed version of a narrative which was mutually-shared, 199 (40.1%) were habitual kernel narratives (K5) which narrated temporally displaced, habitual events often with related evaluations (however, did not include a single, specific displaced time), and 50 (10%) were abandoned kernel narratives (K4) in which an took on a narrative stance (e.g., by presenting a displaced time such as "I remember when") but which was either not pursued or subsequently overtly abandoned. Data regarding initiator and tellership of full conversational narratives and each kernel narrative category is reported below.

Table 4.2

Initiator and tellership of full and kernel conversational narratives across interlocutors

Interlocutor L= Lee C=Clinician M=Moderator	**Initiator**	**Tellership**		
		Single Teller	*Co-Teller*	*Total Number of Narratives Coded as a Teller* (Single Teller + Co-Teller Columns)
Full Conversational Narratives				**Total FCN Identified = 265**
L	102 (38%)	33	135	**168**
C	132 (50%)	75	142	**217**
M	31 (12%)	6	41	**47**
K1 (Event-only)				**Total K1 Identified = 97**
L	35 (36%)	25	44	**69**
C	46 (47%)	38	56	**94**
M	16 (17%)	10	17	**27**
K2 (Evaluation-only)				**Total K2 Identified = 41**
L	27 (66%)	13	31	**44**
C	14 (34%)	10	26	**36**
M	0 (0%)	0	3	**3**
K3 (Indexical)				**Total K3 Identified = 109**
L	33 (30%)	12	52	**64**
C	72 (66%)	57	94	**151**
M	4 (4%)	1	5	**6**
K4 (Abandoned)				**Total K4 Identified = 50**
L	45 (90%)	43	44	**87**
C	3 (6%)	3	3	**6**
M	2 (4%)	5	2	**7**
K5 (Habitual)				**Total K5 Identified = 199**
L	127 (64%)	58	148	**206**
C	68 (34%)	41	127	**168**
M	4 (2%)	2	12	**14**

[a] Percentages are out of total number of full and kernel narrative (types) identified respectively

Results of kernel narrative counts effectively indicated that both Mr. Lee and the clinician (myself) were participants in initiating and telling kernel narratives across barrier treatment sessions. With regard to other narrative characteristics coded (linearity, launch context, and audience involvement), findings were similar to those of Pratzel (2008). As expected, audience members were typically active (300 instances identified) or supportive (721 instances) during a narrative tellings, with the least amount of audience involvement being of the minimal level (93 instances). Additionally, 159 narratives (20.9%) were coded as elicited and 602 (79.1%) coded as non-elicited. Overall, 523 tellings (68.7%) were identified as having open linearity, while 238 (31.3%) were identified as having closed linearity.

In addressing the first research question, the pervasive presence of conversational narratives and narrative episodes overall indicated that the adapted barrier intervention was able to support conversational narrative telling. Due to the low treatment fidelity to one aspect of the intervention, game-play itself, claims on the ability of the barrier game to support conversational narrative telling cannot be made. However, other aspects and goals of the intervention which were adapted to facilitate conversational narrative telling, did show ability to support conversational narrative telling. These included fidelity to certain rules of the barrier task (i.e., not looking over the board and completing card placements), captioning of playing cards, use of and repeated exposure to playing cards, use of personally relevant pictures as playing cards (which Mr. and Ms. Lee took and brought in throughout the course of the study), and emphasis on collaboration between the Lee's and the research team in treatment sessions and consolidation photo album sessions.

Progression of Conversational Narratives Across Retellings

In order to answer the second research question, full and kernel conversational narratives of the same theme were identified and tracked across sessions and time in order to assess changes in type, linearity, and tellership. This proved to be an involved, complex task, as narratives were often thematically related but utilized to accomplish widely different interactional goals. Further, narratives of the same theme often evolved across time and tellings to include novel events and introduce evolving interpretations, thereby highlighting differing aspects of the overarching story itself. Additionally, narratives of distinct themes were also frequently intertwined with each other and referenced within each other, resulting in organization of retellings during analysis being separated into broad, general themes and specific narrative

themes. Primary and secondary theme categories for specific narrative retellings were also used to view these interactions between narratives.

Across the 12 barrier treatment sessions, a total of 34 overarching narrative topics were discerned, and narratives in each topic were separated into repeated tellings of *specific, full narratives* (n=32) such as the Vacation Car story (see p. 57), as well as *non-specific*, thematically-related repeated narrative tellings (i.e., habitual narratives, which never include a full narrative telling, or narratives of the same theme such as Carle Wednesday group activities, therefore involving similar subjects and content; n=40). For the purpose of this research question, data will be reported regarding repeated tellings and progression of specific conversational narratives, which included a full conversational narrative telling. Although patterns regarding linearity and tellership specifically were not seen, strong patterns in the telling and indexing of full conversational narratives by the pair across repeated tellings did emerge within this data set.

Overview of Narrative Retellings. A total of 32, *specific, full conversational narratives* (e.g., the Vacation Car narrative) were identified as sustaining retellings (repeated tellings). Of these, nine were narratives which were told and retold only in the course of a *single session* (i.e., not across sessions), ranging from 2-5 total tellings (mean=3.1) per narrative. Across retellings of these nine narratives, a total of 29 narrative episodes (i.e., full and kernel narratives) occurred. The remaining 23 specific, full conversational narratives were those which had been told, retold, or made narrative reference to across *more than one* barrier treatment session. Across these narratives, number of tellings of each narrative ranged from 3-12 retellings (mean=6), and occurred in anywhere between 2-5 distinct barrier treatment sessions. A total of 133 narrative episodes (full and kernel narratives) were identified as supported through these 23 specific, full conversational narratives (i.e., 133 narrative tellings were related to these 23 specific conversational narratives).

Patterns of Progression Across Narrative Retellings. One pattern seen in the progression of specific, full narratives over retellings was the streamlining of full conversational narratives into succinct indexical kernel narratives (K3). Quantitative data regarding this pattern is presented in Table 4.5 below. Most notably, 74% of full conversational narratives told across multiple barrier game sessions, were streamlined into indexical kernel narratives across time.

Table 4.3

Summary of full conversational narratives which were repeated and indexed

Narrative Characteristics	**FCN; retold across multiple sessions**	**FCN; retold in single session only**	**Total**
Number of distinct CN identified	**23**	**9**	**32**
Total number (re)tellings of CN	*133*	*29*	*162*
Began with a FCN	17 (74%)	7 (78%)	24 (75%)
All retellings were FCN	1 (4%)	3 (33%)	4 (13%)
Began as FCN, ended as K3 narrative	9 (39%)	1 (11%)	10 (31%)
Began as FCN, were later indexed as K3	10 (43%)	2 (22%)	12 (38%)
Included a FCN telling and subsequent K3	17 (74%)	2 (22%)	19 (59%)

[a] Percentages reported are taken from each category's (i.e., multiple sessions, single sessions) total number of distinct conversational narratives identified.

[b] **FCN =** full conversational narratives

Characteristics of Playing Cards Which Facilitated Retellings. The characteristics of playing card stimuli which may have supported retellings of full conversational narratives across multiple treatment sessions were analyzed. *Personal photo cards* included a) Mr. Lee contributed cards, all photographs of him and his experiences and b) clinician-contributed cards which were photographs I took myself. *Non-personal photo cards* included all other photographs used which were not taken by the Lee's or by me. Narratives elicited by a mixture of these cards were those which were produced in response to both personal and non-personal cards. An example of this is the Jet Ski on Vacation narrative (described further in the second results section) which was told in response to both a picture of Mr. Lee on a jet ski (personal) as well as in response to a clinician-contributed card of a man on a jet ski (photo-stock; non-personal). Results, reported below, showed an additional impact in the ability of personal photo cards to facilitate tellings over non-personal photo cards.

Table 4.4

Number of full, repeated CN facilitated by personal v. non-personal photo cards

Card Characteristics	FCN; retold across multiple sessions	FCN; retold in single session only
Total Number of Distinct CN Identified	**23**	**9**
Personal Photo Cards		
Mr. Lee Photos	13	4
Clinician Photos	3	0
Totals	**16**	**4**
Non-Personal Photo Cards		
Mr. Lee Photos	N/A	N/A
Clinician Photos	4	4
Totals	**4**	**4**
Mixture of Personal & Non-Personal Photos	**3**	**1**

Overall, photo cards classified as personal photo cards (i.e., Mr. Lee contributed cards, clinician-contributed cards of photographs which I took) were much more successful than non-personal photo cards in supporting full conversational narrative and retellings across sessions. A total of seven clinician-contributed cards were identified as supporting retellings of full, specific conversational narratives. However, given that three of these seven cards were my own personal photographs (being pictures that I took of the lab, Carle hospital, and the Champaign Public Library), a remaining total of only four non-personal photographs targets (i.e., cards which were not photographs of the pair or depicting their experiences, and/or were not taken by the pair) were identified as supporting retellings across multiple treatment sessions. Similarly, four non-personal photograph targets were identified as supporting retellings of full, specific conversational narratives within only a single treatment session. Therefore, non-personal photographs used in this study did not appear to be any more effective in supporting retellings of full conversational narrative across multiple sessions, as they were in only supporting retellings within a single session (i.e., not being told or made narrative reference to in any other sessions).

In addressing the second research question, focused on patterns of narrative progression across retellings, no patterns regarding linearity or tellership specifically were found, however, a distinct pattern in the progressive indexing of specific, full conversational narratives across

retellings was seen. This pattern of progression will be further illustrated through situated analyses of select conversational narratives in the Results II section. Further, through analysis targeting retelling of conversational narratives, additional characteristics of the intervention, namely the personalization of game materials (photo cards), which best supported conversational narrative retellings were discerned. Specifically, personal photo cards were seen to best facilitate narrative retellings across multiple barrier treatment sessions.

Generalization of Narrative Skills to Elicited Narrative Probes

In order to address the third research question, conversational narratives told during elicited narrative probes were identified and also tracked for changes in their tellership and linearity. As the goal of the elicited narrative probe was to analyze generalization of narrative abilities to an elicited narrative context, only narratives coded as elicited and told by Mr. Lee were considered in this analysis. Although non-elicited conversational narratives were identified during coding as told by Mr. Lee, the clinician, and the moderators during narrative probes, they were not analyzed for change in characteristics. A total of 33 elicited conversational narratives were told by Mr. Lee across 12 narrative probes. Broken down, there were 17 full conversational narratives, and 16 kernel conversational narratives. Of the kernel conversational narratives told, there were four K1 narratives, two K2 narratives, one K3 narratives, three K4 narratives, and six K5 narratives. In regard to linearity, 24 elicited conversational narratives were coded as open, and 9 were coded as closed, all of which also met the qualifications of full conversational narratives.

In addressing the third research question of this study, across all elicited conversational narratives during narrative probes, no pattern was seen towards narratives becoming increasingly both single-teller and of closed linearity. However, when narratives were partitioned to isolate only one of these variables (i.e., either linearity or tellership only), there was a pattern seen in increasing closure over time of *single-teller*, full conversational narratives told during elicited narrative probes. For the first half of elicited narrative probes (i.e., probes 1-6), only 1/9 (11%) of Mr. Lee's single-teller, full narratives were coded as closed. In comparison, in probes 7-12, 4/5 (80%) of these narratives were coded as closed.

Changes in Communication Confidence

To address the fourth research question regarding Mr. Lee's changes in communication confidence outside of treatment conditions, the scores across four administrations of the CCRSA

measure were compared. Composite scores of all ten questions were calculated across the four administrations and are reported below, which showed significant increase over time. Additionally, the ten questions presented in the scale were further divided into three major communicative domains used in Devanga (2016): *confidence in conversations, managing one's life, and confidence in communicating with media.* Scores reported by Mr. Lee on the CCRSA across four administration points (spanning three months total) are reported below in Table 4.7. The full CCRSA measure as administered, including the ten questions presented can also be found in Appendix E.

Table 4.5

Mr. Lee's self-reported CCRSA scores across administrations and domains

Domain	Assessment Session	Photo Album 5	Photo Album 10	Photo Album 15
Conversations				
Ability to talk with people	65	70	65	80
People include you in conversations	30	50	45	65
People understand you when you talk	60	45	55	55
Total	**155**	**165**	**165**	**200**
Mean	**51.6**	**55**	**55**	**66.6**
Managing one's life				
Can make your own decisions	50	55	62	70
Ability to speak for yourself	60	55	50	65
Participate in discussions about your finances	40	30	52	60
Total	**150**	**140**	**164**	**195**
Mean	**50**	**46.6**	**54.6**	**65**
Communication with media				
Ability to stay in touch with family and friends	60	78	70	75
Ability to follow news and sports on TV	50	80	57	70
Ability to follow movies on TV or in a theatre	35	50	73	55
Ability to speak on the telephone	25	45	45	60
Total	**170**	**253**	**245**	**260**
Mean	**42.5**	**63.25**	**61.25**	**65**
Total Mean (in % confidence)	**47.5**	**55.8**	**57.4**	**65.5**

In *confidence in conversation*, Mr. Lee's lowest confidence rating appeared in confidence that people include you in conversations, initially 30%, which represented a significant decrease from his reported score of 85% at the follow-up assessment in 2016. By the end of the study, three days after all barrier treatment sessions had been completed, Mr. Lee rated his confidence as 65%, a significant increase. In ability to talk with people and rating of people understand you when you talk, both categories started at much higher initial scores, 65% and 60% respectively, and a decrease of 10 points since his scores at follow-up in 2016. Mr. Lee reported a 15% increase in confidence in ability to talk, with a final score of 80%. Confidence that people understand you when you talk was the only question in this measure which did not show an increase at the final administration, starting at 60%, dropping to 45% in the second administration, and remaining stable at 55% in the third and fourth administrations.

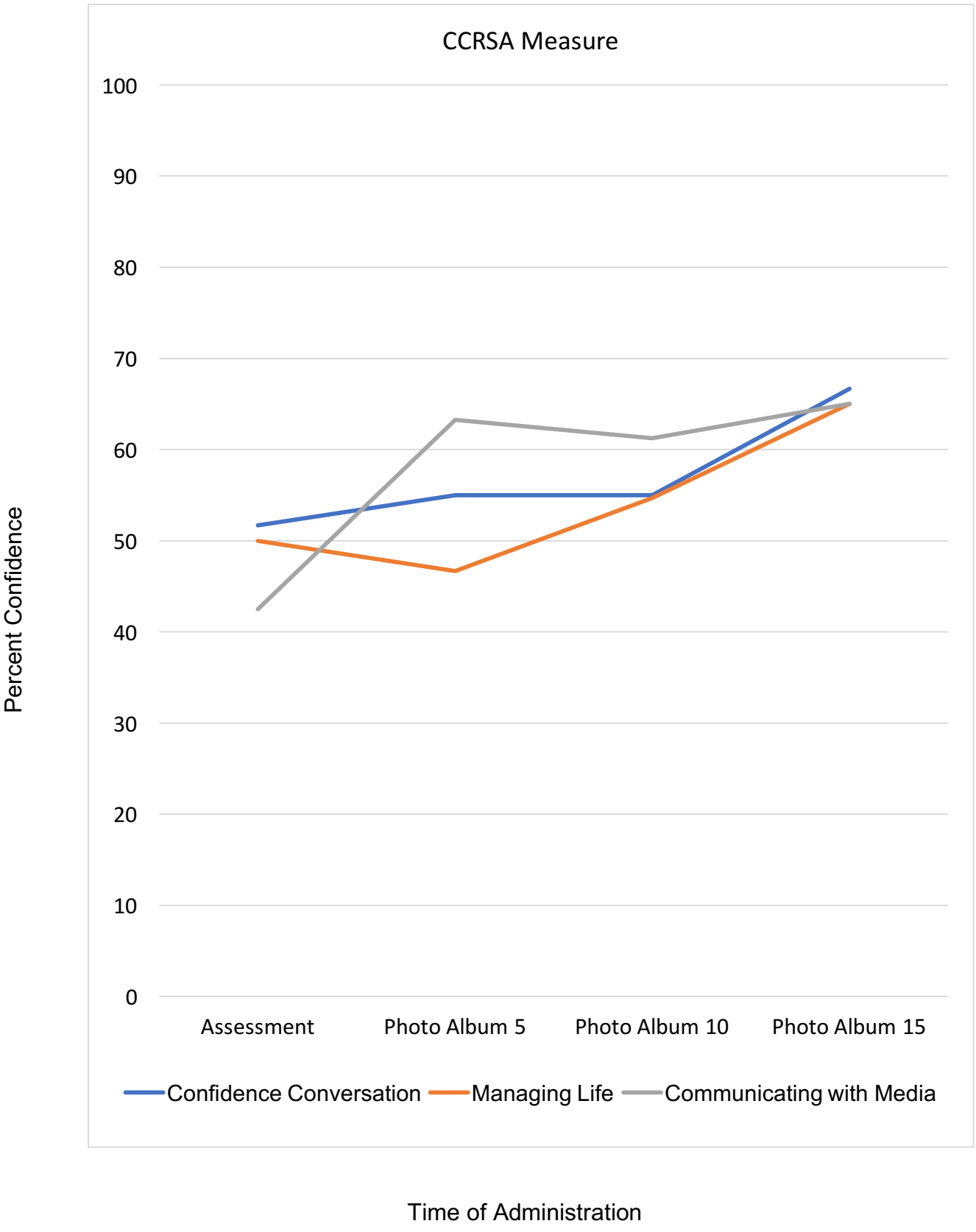
In *managing one's life,* confidence in making one's own decisions, initially 50%, and confidence participating in discussions about finances, initially 40%, both showed an increase of 20% by the final administration. Confidence in ability to speak for oneself showed a slight increase by the end of treatment, increasing from an initial 60% to a final 65%.

In *communicating with media,* the largest increase in confidence was seen in ability to speak on the telephone, increasing from an initial 25% to a final score of 60%, an increase of 35%. This was particularly interesting, as one of the major frustrations Mr. Lee reported in initial interviews was his inability to hold phone conversations for significant time. Specifically, Mr. and Mrs. Lee often referenced the weekly hour-long phone conversations with Mr. Lee's brother before his stroke, becoming about one 15-minute conversation once a month. Lastly, the remaining three questions regarding ability to stay in touch with friends and family members, follow news and sports on T.V., and follow movies on T.V. or in a theatre, all increased by 10 to 15% by the end of the study.

Overall, continual improvements in Mr. Lee's communication confidence were seen over the two-month course of treatment (see figure 4.1) from the initial CCRSA administration during the last assessment session prior to beginning treatment, and the final CCRSA administration at the final photo album session, two days after the last barrier treatment session.

Data points in the graph below represent the calculated average percent of communication confidence in each major communicative domain across the four administrations of the CCRSA measure.

Figure 4.1. CCRSA scores across four assessment points



CHAPTER 5: RESULTS 2

Analysis assessing changes in narrative characteristics across retellings (i.e., creation of the narrative matrix, in response to research question two), additionally allowed for further, situated analyses of narrative tellings and retellings, providing a more holistic consideration of patterns in their evolution across time. First in this section, a general review of the quantitative data which indicated narrative streamlining through patterns of indexing of full conversational narratives across retellings will be presented. Second, situated analyses of conversational narrative tellings pulled from this data set which illustrate indexing of conversational narratives will be detailed, including full conversational narratives which were indexed (utilizing both linguistic and embodied communicative means) and habitual kernel narratives which were indexed. Lastly, situated analyses which support the concluding clinical potential of attending to kernel narratives, and data regarding repeated themes identified across the course of the intervention will be presented. A key detailing the transcription conventions used in this document (and in Figures 5.1 through 5.11 in this section) can be found in Appendix G.

Indexing of Full Conversational Narratives

Following identification of narrative retellings, analysis of narrative retellings indicated a pattern of progressive indexing of full conversational narratives across retellings. As reported in the Results I section, 74% of narratives retold across multiple sessions included a full narrative telling (often not the first occurrence, if multiple kernel tellings were attempted before a full narrative was supported) and followed either directly or indirectly by an indexed retelling. In utilizing a situated approach to discourse analysis, and in line with the particular narrative specifications delineated in this coding protocol, both linguistic and embodied tellings (and a mixture of the two) were included and accounted for in this analysis. The impact of number of sessions retellings appeared in, as well as situated analysis of this pattern of indexing (both narratives starting as FCN and ending in, K3 as well as presenting with a FCN and subsequent K3 telling) will be illustrated below, utilizing narrative examples pulled from this data set. Additionally, the value of utilizing a situated approach to narrative discourse, which considers communicative abilities beyond pure linguistic abilities, will be highlighted through a situated analysis of a full conversational narrative which was indexed, retold, and largely dependent on deployment of embodied communicative resources.

Impact of Retelling in Multiple Sessions. Patterns in narrative development over repeated tellings were further seen with regard to retelling of narratives across multiple sessions versus within a single session. While 17/23 (74%) of full conversational narratives retold in multiple sessions were indexed in a subsequent telling, only 2/8 (25%) full conversational narratives retold within a single session showed this pattern of progression. In fact, a slightly larger number of narratives, 3/8 (38%), told in the course of a single session were likely to remain full conversational narratives (i.e., all tellings coded as full). Although eight total narratives represent a small data set, this data does support the conclusion that there may have been greater opportunity for narratives which were retold across multiple treatment sessions to be told or made reference to enough to be subsequently indexed by the pair.

The Vacation Car Narrative. The Vacation Car narrative is one example which begins as a full conversational narrative in its introduction and streamlines neatly into a final, indexed (K3) kernel narrative. This narrative was associated with a picture of Mr. and Mrs. Lee, and two of their granddaughters (who are doing handstands) beside a van they needed to rent when their car broke down driving back from vacation. After returning home in the rented car, their daughter then had to wait a frustratingly extended amount of time to get their original car fixed and returned back home. I first heard this story in the last assessment session over the summer, after they had returned from vacation, and Mrs. Lee had suggested mid-way through treatment that she bring in a couple of their pictures from that vacation to play with during treatment sessions. Across treatment sessions 12 and 13, this narrative is repeated and made narrative reference to (i.e., using an indexed K3 version) a total of six times, although only the full text from the first three and the last tellings will be presented here.

The Vacation Car narrative was first told in three separate, full conversational narratives during treatment session 12, which provided the full narrative information. The first full narrative describes their need to take the rental van (shown in the picture) after the car broke down, the second narrative elaborates on the story as Mr. Lee recalls the after events of waiting to get the original car back home, and the third fills in additional information about their experience waiting for the rental car. These narrative tellings are presented below:

Treatment Session 12; Captioning
L: This is the car. And they…we had that down. They couldn't get her back she came back by 2 or 3 or 4, 4, fifth, uh 1 2 3 4 probably 4 or 5 come back H: Right L: But we didn't go it ya' know H: 'Cause that's when it broke down, right? L: Yeah this was the one that actually from this one here H: Oh you took this one L: 'Cause the other car went the other side H: Okay so is this the one you guys took afterwards? L: Yeah…**we needed that** (laughing) H: Sounds like it
Treatment Session 12; Barrier Round 1
L: The car that we rent on vacation. And this is the car that we had (laughing) and we had it H: 'Cause you guys waited for a while for it right? L: Oh a long time H: I remember that was part of it L: Yeah it was probably almost 3 or 4 or 5, 2 weeks H: **Oh** 'cause then you had to get the other one back right? L: Yeah we were sposta' get it back H: Yeah L: And then they said no were not gonna' do it. And then finally no you'll have to get it back
Treatment Session 12; Barrier Round 5
L: The car we rent on vacation H: (laughs) yeah L: And we were tryin' to find out I don't know what she's trying to figure out H: Yeah (laughter) so when this is when you guys were waiting around? L: Yeah we were just waiting we couldn't get the next one H: So I see you and [Mrs. Lee] didn't want to do handstands L: No we decided not H: You guys said we'll do that next time L: Yeah (laughing) I got plenty of time so maybe next year

Figure 5.1. Vacation Car narrative; first three full narrative tellings

In the next treatment session, when playing with the same vacation car playing card, the narrative is not re-told in full, but is simply efficiently indexed instead).

Treatment Session 13; Barrier Round 5
L: On one and uh the car we needed on vacation (smiling) on one H: (chuckles) Yeah and you guys really did need it L: What? (Looks at H) H: You really did need it L: (smiling, nodding) Yeah we really did

Figure 5.2. Vacation Car narrative; final indexed telling

Interestingly, Mr. Lee's label for the card in the final indexed telling ("The car we needed on vacation"), and my repeated indexing of the narrative meaning ("Yeah and you guys really did need it") utilizes the language which Mr. Lee had employed in his original telling as a narrative evaluation ("Yeah…we needed that (laughing)") rather than that of the caption written on the back. Language used in the caption, which read "The car we rented on vacation," was used prior to this final indexing, as the card label in full narratives two and three.

Embodied Narrative Tellings: The Jet Ski on Vacation Narrative. Another aspect of the intervention and analysis of conversational narratives which supported their tellings and identification, was the consideration and encouragement of multi-modal, embodied communication. This advantage is particularly present in the Jet Ski on Vacation narrative, which was expressed both through full CN and through indexed kernels (K3) across five separate treatment sessions for a total of 12 repeated tellings. The research team and Mr. and Mrs. Lee had first talked about this narrative as a group in the assessment sessions; the Lee's had returned from vacation and Mr. Lee was still sore from jet skiing with his daughter. During treatment, this narrative was told in relation to two distinct picture targets; the first was a general, clinician-contributed picture of a man on a jet ski, and the second was an actual picture of him and his daughter which he had brought in to play with midway through treatment. The first telling of this narrative is a full conversational narrative, elicited by me, which occurs during captioning of the playing cards in treatment session one.

A full key to the transcription system used in this document can be found in Appendix G for reference. In the following four transcriptions, gestures highlighted in blue indicate the same, repeated gesture which contributed to and anchored these highly embodied tellings and retellings.

Treatment Session 1; Captioning
H: Have you recovered then? L: No but it was ok H: We can talk about what you did on vacation then. Cause that would be a good one to talk about J: Yeah L: Okay H: (laughing) So how would you describe your experience? L: Pretty close to my uh daughter we rode with each of us H: Oh yeah. That's perfect. CONT. L: I couldn't do it myself H: You did it! L: (pointing at man on jet ski picture) but the both of them H: Oh the driving? L: Yeah the drive yeah H: I have never driven one either. I've only sat in the back L: I'd like to but— H: I would not— L: Oh you wouldn't? H: Yeah J: I think it's scarier to sit on the back cause it's easier to fall off. L: Yeah I was really on **(mimics holding on tight)** H: Sometimes like your fingers are (crunching fingers) afterwards 'cause you are holding on to like the other person L: Yeah right here (hooks fingers to sides) hold this one and H: Right was it like a loop? (everyone laughs)

Figure 5.3. Jet Ski on Vacation narrative; first full narrative telling

In the scope of the Jet Ski on Vacation narrative across repeated tellings, Mr. Lee's expressive gesture (presented here as "mimics holding on tight" in bold), becomes a staple narrative resource used by the pair in most of the subsequent tellings and references (both within treatment session 1 and throughout treatment sessions 2, 8, 9, ending with final tellings in treatment session 11). When this narrative is re-introduced for the last times in treatment session eleven, this gesture, now specific between us to the Jet Ski on Vacation, is utilized first by Mr. Lee to re-tell the full narrative, and subsequently adopted by me to end effectively in two succinct, indexed kernel narratives (K3).

Treatment Session 1; Barrier Round 1
H: Have you recovered then? L: No but it was okay H: The vacation over the summer? Yeah it really does look like there's only one person. L: I know it I'm gonna' have to … drop H: Do you remember holding on that tight? L: Oh man I was **(L does crunched up motion)** and I did that H: But did you guys come close to falling off or anything? L: Yeah H: (eyes wide) You did? L: No I didn't fall over no but everybody one or two or three of them had already H: Had wiped out? L: Yeah H: Oh man yeah that's funny L: We thought we're gonna' do it!
Treatment Session 11; Barrier Round 3
L: The picture of the j-j-letski on the ... no...anyway we were tryin' to can't even say this all these things down here now H: (giggling) I'm just thinking of you like this **(squeezes arms around self)** L: (wide smile) Yup the way it was doin' all the time, everyday H: Yup this is the jet ski? L: Yup yeah (looks at H, nodding) H: Yeah so jet ski on vacation is number 8
Treatment Session 11; Barrier Round 6
H: Okay so number six is you and your daughter on the jet ski L: Jet ski H: Yeah L: Right here the picture with the jet—I something got it yeah (looks up at H nodding) we wanted, we're gonna' do it H: (smiling, **holding motion**) holdin' tight on the jet ski on vacation L: That's right yeah

Figure 5.4. Full retelling and indexed narrative tellings of the Jet Ski on Vacation narrative

The progression of this particular narrative into an indexed narrative reference highlights the necessity of acknowledging vast and varied communicative resources which are used in conversational narrative tellings, beyond pure linguistic structures. The highly effective use of this gesture between the pair falls in line with notions that use of communicative resources, including gesture, are functions of and dependent on situated and contextualized, embodied communication (Goodwin, 2000). In this case, the pair's effectiveness in sharing this narrative

across treatment sessions and retellings is largely reliant on their ability to draw on multiple communicative resources, including the "holding on tight" gesture, which would not have been captured for its potential and necessity in a purely linguistic analysis of narrative tellings.

Indexing of Habitual Kernel Narratives

In addition to repeated tellings of specific, full conversational narratives, a vast number of themes (n= 39) were identified in supporting narratives which were did not represent a single, specific narrative (e.g., narration of the classic events overall from yesterday's Wednesday Carle group meeting during each Thursday treatment session) or full (i.e., well developed and informative habitual kernel narratives, such as "Gina and the Clock"), however which did support repeated tellings. Many of these repeated tellings of the same theme included the same or similar habitual events and frequently utilized, comparable language and narrative structure, thereby often being supportive of progressive indexing. The evolution of the Gina and the Clock narrative, originally a habitual kernel (K5) narrative, shown below illustrates this process.

Treatment Session 9; Barrier Round 3
L: (reading) Working with Gina in speech and that's um Gina and probably 'cause waiting H: the grapes and food there? L: Yeah same ta-ta- no. We didn't have a table before H: The coffee too— L: Coffee and but uh it was um the uh cup—clock H: Oh yeah, we talked about that! The grandfather clock in the back L: Yeah, yeah we never had that for a while H: Yeah, does it work it looks like it's older though L: Yeah a little bit H: Chimes on every hour? L: Yeah too much and Gina she'd be tired and "oh no!" Yeah know and just wait H: Yeah until it stops the clocks can be a little loud sometimes
Treatment Session 9; Barrier Round 4
H: The clock that annoys Gina L: (chuckles) oh yeah real bad
Treatment Session 11; Barrier Round 1
L: It's the clock H: (laughs and nods) L: The you know clock and Gina H: Yeah the clock that Gina hates

Figure 5.5. Progression of habitual Gina and Clock narrative across repeated tellings

L: Yup ya' gotta' see that H: Yup
Treatment Session 11; Barrier Round 6
H: Number three is you and Gina and that clock L: And the clock H: (laughs) L: You remembered that H: I know I won't forget it now

Figure 5.5. (cont.)

The progression of this habitual narrative mimics the progression also seen in the repetition of full, specific narratives. Additionally, the narrative evolution illustrates an instance where the narrative associated with the picture essentially became the card label, as opposed to the content of the caption written on the back, which read "working with Gina on speech." Lastly, the progression towards succinct indexing of the original habitual narrative telling demonstrates a stark contrast between Mr. Lee's struggle to produce the word "clock" initially, and his later ability to effectively initiate and convey "It's the clock."

Potential of Kernel Narratives

Analysis tracking narrative characteristics across retellings also indicated a pattern of initial kernel narrative tellings evolving into full conversational narratives across retellings. Specifically, of the 32 specific, full conversational narratives which were retold throughout the intervention, seven of these narratives (22%) began initially with a kernel narrative telling, and were later supported as a full conversational narrative in a subsequent telling. Of these seven narratives, two began with an indexical (K3) kernel narrative telling, two began with an abandoned (K4) narrative telling, and three began with an event-only (K1) kernel narrative telling. Further, a closer, situated analysis of one of these seven narratives, the Weekend Weenie Roast narrative, highlights ways in which full conversational narrative tellings were accomplished, when their initial kernel narrative tellings were effectively supported.

The Weekend Weenie Roast Narrative. One example which highlights the potential of recognizing and pursuing kernel narratives, as well as illustrates the benefits of the collaborative aspects of the intervention in supporting narrative retellings (i.e., involving Mrs. Lee, taking notes in the observation room, utilizing personal photographs, multiple exposures to cards), was the evolution of the full conversational narrative entitled "Weekend Weenie Roast." This

narrative occurred across treatment sessions eight and nine, moving from a twice-abandoned K4, growing into a full narrative (which also launches a habitual K5) and full retelling, and ending efficiently as presented by Mr. Lee in an indexed kernel narrative (K3). The narrative first begins with two abandoned (K4) attempts with Mr. Lee as the sole teller. During both of these narrative attempts, my designation in the coding document as an active audience member depicts my effort to use clarification questions to contextualize the information Mr. Lee is providing, while he holds the playing card photograph of him and his friend Denny leaving on a bike ride.

The first time Mr. Lee takes on a narrative stance on the subject is during the fourth round of the barrier game in treatment session eight. This excerpt of narrative discourse was coded as abandoned because of a) his comment at the end, "we can come back to it," which marks an instance of overt abandonment and b) because although information was provided that something would happen this weekend, no specific events or descriptions are agreed upon through this interaction (i.e., possible that a large number of some people are gathering somewhere to do something):

Treatment Session 8; Barrier Round 4
L: And then this will be maybe...I don't…he'll be here this weekend, he'll be and then she'll be out with 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14—
H: Miles? Or people?
L: People, out of there…we're gonna' go to their calen—um—dog…
H: This weekend are you?
L: It's been quite a while but it's been…from them…I can't say her name is—c—Chicago—not Chicago but it's um…
H: Is this still about biking though? Are you going to a different city?
L: They're coming down…we can come back to it.

Figure 5.6. Weekend Weenie Roast narrative; first abandoned narrative

Sara's (the undergraduate research assistant assisting with data collection) notes on this interaction taken in her researcher's log in the observation room, were initially marked in red, reading:

"He said he went biking this weekend and didn't go very long, on his own
- He said that Denny will be around this week
- **They have weekend plans**
- **13 people are going to Denny's ([Mrs. Lee] says it's for a wiener roast)** but he couldn't remember why"

This narrative is then launched a second time in an attempt by Mr. Lee immediately following this round of the barrier game, which ends in another abandoned kernel (K4). In response to receiving unclear information despite his clear narrative stance, I ask again "Are you trying for this weekend?" to which he replies, "Yeah I was trying to think what I was…I'll just have to wait until later I guess."

By the time Martha, the moderator in this session, comes in to run the elicited narrative probe, she brings up the picture of Denny (who we know attends the same church as the Lee's), adding in her own information gleaned in the observation room to support co-telling of the full Weekend Weenie Roast narrative. I connect this new information back to the original abandoned attempts, and this additionally launches Mr. Lee's subsequent single-teller, habitual narrative explaining typical annual weenie roast events:

Treatment Session 8; Probe
M: This weekend, isn't [Denny] having some sort of party? [Mrs. Lee] was saying that at Denny's house this weekend they're having a weenie roast! **L:** Oh yeah they are! **H:** Oh so is that what you were talking about this weekend? **L**: Yeah (nodding) **H**: That Denny is going to have a lot of people over? **L**: Yeah yeah, I see CONT. **M**: And it's both him and his wife who are having the party this weekend? … Now are you going? **L**: Oh yeah. … If it gets cold, why maybe we'll change out. They don't usually

Figure 5.7. Weekend Weenie Roast narrative; full narrative telling

He immediately launches into an informative, but habitual kernel narrative (K5, marked by the underlined habitual time displacement), recalling events of the annual fall weenie roast:

Treatment Session 8; Probe
L: Usually they do this <u>every year</u>, it's pretty good. They'll get their jackets or something like that. All the peoples comes around here, at Denny's and everybody comes out…we all by the church go the whole church, yeah the whole church comes out come to the church

Figure 5.8. Weekend Weenie Roast narrative; habitual narrative telling

The Weekend Weenie Roast narrative continues to be brought up again, twice, in the next treatment session three days later (treatment session nine). This time it is initiated not in response to the Denny biking picture, but in response to using a picture playing card of Matlock

eating a hotdog. Having already told the full story in the previous session, the next retellings include a review of the full narrative (alongside a cross-referenced narrative about helping Denny with shrubs, and Mr. Lee's evaluative, habitual comparisons to previous weenie roasts before his stroke), and again, a succinct and final indexed version of the narrative during the elicited narrative probe.

The full, co-told retelling is first initiated by me during the fourth barrier game round:

Treatment Session 9; Barrier Round 4
H: Three is Matlock and his hotdog…and this is gonna' be you this weekend too eating hotdogs **L**: That's right **H**: For the weenie roast. Didn't you say Denny is hosting? **L**: Yeah he will **H**: That'll be fun **L**: Yeah she [Denny] does everything you know when he goes out. And I used to be able to do it before but I can't do that now. **H**: To get the food and everything before? **L**: Yeah I don't get to do like I used to. Oh well. **H**: So you still get to go and eat the hotdogs though **L**: Yeah **H**: Do you help cook them too? **L**: Oh yeah **H**: So you're already doing a lot of work for Denny's party, you're the guest! **L**: That's right, yeah I do! **H**: You already helped Denny with shrubs, you're doing the weenie roast with Denny **L**: Yeah that's right a couple weeks ago CONT. **L**: Yeah we do quite a things we do

Figure 5.9. Weekend Weenie Roast narrative; full narrative retelling

This full narrative, which retells events expected to happen at the weenie roast this weekend, also serves multiple other narrative functions. Mr. Lee uses what events are to happen this weekend (Denny going out to get materials) to contrast his role in previous annual weenie roasts and general activities; narrative discourse which both reflects on and works to mediate his perception of his abilities (i.e., ability to pick up materials), and which illustrates his stance on the loss of a certain independence after his stroke ("Oh well"). Pressing on, I counter with other important roles he will be able to play this weekend (helping to cook), leading me to conclude that he already helps Denny in more ways than one. To prove this, I also reference another well-

known narrative (associated with a specific Denny/shrubs picture card) we have previously told and retold; the day when Mr. Lee helped Denny to load cut-down tree shrubs into a truck.

Finally, the last retelling of (or narrative referencing of) the Weekend Weenie Roast narrative appears during the elicited narrative probe. Jennifer, the moderator in this treatment session, goes to re-elicit this narrative from Mr. Lee, but, having been fully told and retold already, the narrative instead is simply indexed between the group neatly in a kernel narrative (K3), Jennifer chooses not to pursue it further, and the interaction is kept short.

Treatment Session 9; Probe
J: (pointing to the Matlock picture) 'Cause what are you doing this weekend? **L**: (nodding, smiling) Hot dog (J and H smile) **J**: (nodding) Yeah the weenie roast **L**: Yeah

Figure 5.10. Weekend Weenie Roast narrative; final indexed telling

This progression of an initially abandoned kernel narrative which was supported to accomplish a full conversational narrative, and was finally cooled and indexed into a final indexical (K3) kernel narrative illustrates potential and possible trajectories of kernel narratives, when pursued and supported contextually and interactionally. Further interpretation and implications of these results for clinical work will be discussed in the Discussion section. Next, a final finding regarding engagement in repeated themes, providing additional support for narrative telling and retelling in this intervention, will be discussed.

Engagement in Repeated Themes

While the habitual Gina and the Clock narrative, presented earlier in this section, is of a fairly specific theme (as compared to specific, full conversational narratives), other repeated themes (e.g., typical day at Carle volunteering) which were not as tightly associated to a particular narrative were also repeatedly supported throughout the course of the intervention. One example of this was the presence of the overarching "performance" theme. Within this category, a pervasive narrative theme discerned included frequent repetitions of the "end of round/session reflection" conversational narratives. Although the content of these highly negotiated narratives changed slightly with each new round, the overarching structure and interactional patterns which supported them often remained surprisingly constant. They typically began with Mr. Lee recalling something that almost went awry, followed by another interlocutor's, often dissenting opinion of the events, and either his acceptance of this alternative

version of events or in a third interlocutor's summation and evaluation of our performance overall). These conversational narratives, which included both as full and kernel narrative tellings, were not analyzed for change across retellings (i.e., in response to the second research question) as they did not represent a specific, full conversational narrative as required. However, similar to retellings of specific, habitual narratives, they were noted for their potential in providing opportunities for engagement in the retelling of common, even routinized conversational narratives. In the case of narratives noted as "end of round/session reflection," themes and content were specific to the culmination of each round within barrier game activity (an opportunity which typically occurred six times per session) or each session overall. Examples which illustrate this notion are presented briefly below.

Treatment Session 1; End of round (BT round 2) reflection
L: Thank you for tell me about I'm tell me not to—I couldn't but out—I couldn't do some of these things I thought "boy I can do this gotta' do this" H: No I mean the jet ski one was my fault I was saying something completely different L: Well I didn't I got all mixed up H: But the Illini one that was real quick too
Treatment Session 8; End of round (BT round 3) reflection
L: …I usually get it. But today I sure…have been having trouble and I can get it pretty good and I keep looking at it and I just can't get it H: It's hard because you know yourself better than anyone and so I look at you and think you're doing great, but sometimes you feel like you're better or worse L: I'm just not very good at all J: I think you guys are doing great! 12/12 each time!
Treatment Session 11; End of round (BT round 3) reflection
L: I just feel so bad…I just can't get—I just can't understand why now I can't even do anything you know? Oh well H: Well some days are harder than other days I think L: Yeah I think you're right H: And there may not always be a definite reason why L: Well now you can get—er –everything though but I can't do anything on some days it seems like, "oh well" H: Well I'm understanding you L: Well 'cause you're easy H: I think we're doin' a good job playing the game as usual L: Well good

Figure 5.11. End of round reflection narrative examples

These narrative excerpts help to illustrate the consistency in content and structure which can appear in non-specific narratives related by general theme. Further discussion of the possible benefits associated with consideration of these narrative routines, as well as further interpretation and discussion of the results of this study as a whole, will be presented in the Discussion section below.

CHAPTER 6: DISCUSSION

The collective results of this study support the conclusion that this collaborative intervention was able to effectively support conversational narrative telling, and provided opportunities for the client clinician pair to retell conversational narratives within and across treatment sessions. Furthermore, the results of CCRSA data taken regarding Mr. Lee's communication confidence, indicated there was an additional impact of the intervention on Mr. Lee's life outside of treatment, through a pattern observed in the continual increases in his reported communication confidence measured by the CCRSA scale across the course of treatment. Patterns seen in the progression of full conversational narratives toward succinctly indexed kernel (K3) narratives were discerned through analysis of narrative retellings, which support the concluding notion of potential for efficient collaborative success and social learning in sharing narratives across retellings. Additionally, further situated analysis of narrative retellings illustrated the potential of kernel narratives to serve as an entryway to subsequent full conversational narrative retellings, when given adequate support. Finally, considering the patterns of collaborative referencing shown in previous barrier game research (Hengst, Duff & Dettmer, 2010; Devanga, 2015; 2017), where card labels and use became increasingly streamlined and consistent, the possible impact in supporting narrative retellings, as well as further aiding progression of full narratives into indexed kernel narratives or other common card labels, might be expected to be even greater in an intervention in which game fidelity was also maintained. A discussion of these results, and implications for both clinical work and future narrative research are expanded upon below.

Intervention Ability to Support Conversational Narrative Telling.

In order to answer the first research question of this study regarding the ability of this intervention to support conversational narrative telling, all 12 barrier treatment sessions were coded in full in order to identify full and kernel conversational narrative tellings. As fidelity to the barrier game was not maintained, claims on the ability of the barrier game to support conversational narrative telling cannot be made. However, the overall identification of 761 narrative episodes across 12 barrier treatment sessions supported the conclusion that other aspects of this intervention, to which fidelity was maintained (such as the use of personalized photo cards and collaboration with Mr. and Mrs. Lee), were able to effectively support conversational narrative telling. Although fidelity to game-play during these sessions was not

maintained, the collaborative and personalized aspects of this intervention overall were observed to effectively support and encourage conversational narrative telling. Specifically, results of the situated analyses of narrative retellings presented in the second results section indicated that support for conversational narrative tellings was increased through collaboration with Ms. Lee and other members of the research team (e.g., Weekend Weenie Roast narrative) and continued contextualization of narrative tellings (e.g., utilization of shared knowledge of the Vacation Car story in building upon retellings during barrier treatment sessions). Additionally, consideration of personalized aspects of this intervention, such as the playing card characteristics which supported retelling of conversational narratives, further substantiate the conclusion that the personalized nature of this intervention (e.g., camera given to Mr. and Ms. Lee to create game materials) was able to enhance support for conversational narrative telling. Particularly, analysis of card characteristics revealed a pattern indicating that playing cards which featured a personal photograph were much more successful in supporting retellings than non-personal playing cards. A potential reason for this pattern could have been that the narratives which were not associated with any personal photograph (i.e., not Lee personal, clinician personal, or mixed personal and non-personal) were less personally relevant and salient to the pair, and therefore less likely to be evoked beyond the scope of a single treatment session. There were exceptions to this rule, such as a non-personal, clinician-contributed photograph of soldiers climbing on a ship evoking and repeatedly facilitating Mr. Lee's Korean War narrative, "Boat to Korea" across multiple treatment sessions. However, the overall likelihood of a non-personal photograph supporting repeated narrative tellings across sessions versus only in a single treatment session remained the same. These implications are particularly important for both narrative research and clinical work, given the traditionally heavy reliance on picture stimuli which are used to elicit narrative tellings in a majority of studies on narrative discourse in aphasia, as acknowledged in the literature review, shedding light specifically on useful characteristics of picture-based supports and stimuli for narrative telling.

In addition to the collaborative and contextualized nature of the intervention, communicative and interactional support provided by the flexible nature of conversational narratives, as well as situated analysis specifically (as opposed to formal, linguistic-based, elicited narrative tasks and analysis) highlighted the opportunities for narrative retellings and progression, when communicative resources and analysis were not restricted simply to structural

linguistic forms. Consideration of embodied and situated communicative practices, such as the highly embodied Jet Ski on Vacation narrative telling, made it possible for this research team, in analysis, to better account for the wide and flexible variety of resources used in successfully co-constructing, telling, and retelling narratives in interaction. In the case of the Jet Ski on Vacation narrative specifically, another important note is that embodied narrative tellings were not simply restricted to Mr. Lee, and therefore did not serve as a certain indicator of inadequate narrative telling abilities due to linguistic disruptions caused by aphasia. My choice to adopt the "holding tight" gesture as a primary tool in telling the narrative, despite fully intact linguistic abilities, might instead suggest that this particular pattern of telling was the most efficient, effective, or relevant way for me to convey this particular story in that particular interactional context. This brings into question the value of the strict reliance and heavily deficit-based emphasis many narrative studies have traditionally placed on purely linguistic forms of narrative telling, where use of communicative resources besides accurate spoken (or occasionally written) language use is viewed to be deficient simply because of the nature of aphasia as a disorder. Realistically, these purely linguistic based analyses of narrative are unlikely to completely or best represent the conversational narratives we choose to collaboratively construct and use throughout interaction in our everyday conversations and lives, heavily limiting the ecological validity of their use.

Progression of Conversational Narrative Tellings Across Retellings

To address the second research question regarding the progression of conversational narratives across retellings, retellings of specific, full conversational narratives were identified across time in a narrative matrix. Further quantitative and situated analysis or retellings, as presented across both results sections, revealed progression in the pair's ability to efficiently streamline full conversational narratives into more succinctly indexical (K3) kernel narratives. This pattern was seen most distinctly in retellings which occurred across multiple treatment sessions, which supports the conclusion that exposure to repeated interactional material and topics across multiple sessions was most supportive of the pair's learning, seen in their ability to acknowledge and access shared social history, evolving and indexing full conversational narratives across time. Due to indexical narratives (K3) designation as kernel narratives, which typically only included presentation of a single event, thereby evoking an audience reaction and indexing a commonly-known narrative, these narrative episodes were force-coded during data analysis as having open linearity. However, in further analysis of the progression of these

retellings, the ability of the pair to index full, known narratives as indexical (K3) kernel narratives supported the conclusion that use of these particular narratives solidified and streamlined across retellings, as interlocutors built upon common ground to effectively and efficiently reference full narratives in overarching conversation. Therefore, these kernel narratives were not certain indicators of an unsuccessful interaction, but could instead simply represent a distinct, increasingly abbreviated version of a full narrative which had already been told.

The Clinical Potential of Kernel Narratives. Similarly, a clinical implication which arises is that identification of kernel narratives, while not considered fully formed in this analysis, could also serve as repeated, integral points of intervention for collaborative development of and re-entry into full conversational narrative tellings and retellings within interaction. The progression detailed in the second results section of the Weekend Weenie Roast narrative (a specific, full conversational narrative) across time and multiple sessions, highlights the potential for kernel narratives when effectively supported. The unrestrained nature of the telling, and of the resources used (such as other tellers, Mrs. Lee, multiple, distinct photo cards) in effect was able to enhance the ability of this full narrative to come to fruition. Then, once the narrative had been told, re-told, and was known to the group, Mr. Lee's concluding ability in treatment session nine to efficiently and effectively utilize an indexed version of the narrative to convey meaning (with his quick response "hot dog"), presented a stark change from the initial unresolved and abandoned attempt at telling which we had pursued in treatment session eight. Additionally, although this indexed version of the narrative in the treatment session nine probe was not pursued at that time, it represented another potential, kernel narrative entry into a full conversational narrative retelling, which might be used clinically. In this case, if Jennifer or I had bought-in to the narrative telling, or pursued delving into a retelling by offering an opening back into the narrative (e.g., "So what's your job then for this weekend?", "Do you think it'll be good?", or "I want to hear more!") building into another, fuller narrative telling could have been encouraged and supported.

Further, the remaining kernel narrative categories were also noted for their interventional potential in supporting subsequent full conversational narrative tellings. Event-only (K1) and evaluation-only (K2) kernel narratives present particular clinical relevance in supporting full conversational narrative telling (e.g., if an interlocutor presents only one event in a K1, simply

asking "and then what happened?" could support further development). Highlighted in the initial tellings of the Weekend Weenie Roast narrative was the potential of abandoned (K4) kernel narratives. Although abandoned on first attempts, the initiation of collaborative support and resources was able to support the evolution of two abandoned narrative attempts into repeated tellings of a full conversational narrative. Lastly, habitual (K5) kernel narratives, despite not presenting a single, specific time, were not only seen to produce certain developed narratives (e.g., Gina and the Clock), but were often noted to launch full conversational narrative tellings of specific narratives related to the habitual theme, again providing a possible key entry into full conversational narrative telling that might be capitalized upon clinically.

Engagement in Repeated Themes. In addition to patterns of retelling specific, full conversational narratives and kernel narratives alike, an additional support for retelling and continued engagement in narrative tellings was noted in the continual appearance of repeated themes. Although these themes were not connected by one specific conversational narrative topic, from a single moment in time, many of these retellings introduced largely similar content and narrative structure. These repeated themes often introduced semi-routinized narrative interactions, and consideration of their relevance in everyday conversation is of great importance. For example, another frequently repeated theme (besides the end of round performance as presented in Results II), was that of the Carle Wednesday Group narratives. These tellings were typically in response to my weekly initiating question, variations of "How was Carle group yesterday?" (therefore, also coded as elicited), wondering both how his weekly activities went, as well as how his other communication-related activities in particular were progressing. Mr. Lee's response typically included some type of confirmation that he attended, short evaluations of how others were progressing in comparison to him, and noting that the "typical" activities (speaking, with some reading and writing practice) had occurred. While this may not have necessitated practice in producing entirely specific, novel narrative information, these tellings not only utilized language beyond purely automatic language, but also showcased Mr. Lee's ability to participate in an integral, often routinized interactive practice, which might be likened to succinct and scripted "small-talk," and which can be expected to appear with high frequency throughout one's everyday life (e.g., responding to "How was work today?", "How did your workout go?", "How was breakfast?"). Consideration of the wide variety of contexts and interactional routines in which we use narratives, such as engagement in repeated themes,

and the multiple functions that narrative serves throughout our everyday lives, showcases repeated interactional opportunities clinical work might attend to in order to target and support continued development of a full range of narrative abilities. In this way, a casual conversation wherein a clinician authentically makes an inquiry into and supports their client's reports from the previous week, provide opportunities for narrative engagement which are equally as important and relevant as narrative work focused on retelling of a specific conversational narrative.

Generalization of Narrative Abilities to Elicited Narrative Probes

To answer the third research question regarding the generalization of narrative abilities to elicited narrative probes, characteristics of Mr. Lee's narrative tellings in narrative probes (tellership and linearity specifically) were tracked across time. Although, similar to the results of analysis focused on narrative retellings, patterns of change in linearity and tellership together were not noted in changes in elicited narrative tellings during probes, a pattern was seen in the higher likelihood of Mr. Lee's single-teller narratives to be closed in later sessions as compared to earlier sessions. These results supported the conclusion that Mr. Lee's ability to produce a linearly structured narrative in response to an elicitation improved across treatment, a structure which is typically considered desirable through related linguistic-based measures of global cohesion and coherence in traditional narrative research in aphasia. However, instructions and goals of the elicited probe might be better adapted in future studies, to encourage focus on single-teller narratives (to better mimic the goals and protocols of traditional narrative research in aphasia). As there was no explicit goal presented to Mr. Lee in the instructions to tell a narrative without support of other interlocutors, and the collaborative intervention showed consistent patterns of successful collaborative tellings, it is not entirely surprising that there was not a large increase in single-teller narratives across time. It is also not particularly surprising that co-told narratives did not show an increase in closed linearity across treatment probes. Similar to the conversational narrative excerpts presented in Ochs and Capps (2001), co-told narratives often authentically feature speaker's differing opinions and interpretations as narrative evolve, which contribute to an open linearity. However, this feature may not be a signal of interactional incompetence of the pair (i.e., difficulty relaying information due to disordered disruptions), so much as a varying interactional pattern depending on certain changing features of the interactional context, such as the stances interlocutors choose to take on a subject. As will

be noted in the future research directions portion of this section, a further situated analysis noting internal versus external disruptions in narrative telling may be helpful in better characterizing the nature of these co-told narratives.

Additionally, the timing of the narrative probe administration (i.e., at the end of a two-hour treatment session), may have contributed to a certain amount of participant fatigue, which could have negatively impacted elicited narrative telling abilities during the probe. Lastly, indexing of full conversational narratives, a pattern found in the retelling of conversational narratives not restricted only to tellings during the narrative probe, was not analyzed with regard to the elicited narrative probe data. As goal of the elicited narrative probe was to elicit three, distinct full conversational narrative, these tellings were automatically predisposed to be full conversational narratives, isolated from the surrounding topic of discourse.

Changes in Communication Confidence Outside of Treatment Conditions

To address the fourth and final research question regarding the impact of this intervention on Mr. Lee's communication confidence outside of treatment conditions, Mr. Lee's self-reported scores on the Communication Confidence Rating Scale for Aphasia (Babbit & Cherney, 2010) were tracked across four administrations over the course of the intervention (Assessment Session 4, Photo Album sessions 5, 10, and 15). Similar to the increase in communication confidence reported by Mr. Lee in Devanga (2016), this study also found increases in Mr. Lee's self-reported communication confidence over the course of this intervention. This steady increase in Mr. Lee's CCRSA scores (see p. 56) effectively supported the conclusion that there was an effect of the intervention outside of treatment conditions. Discussion of this impact can be directly related to research outlined in the literature review section, studying psychosocial effects and changes in adjustment to disability mediated by identity rehabilitation through autobiographical and illness narratives specifically.

In this study focused on conversational narrative telling, these continual increases in Mr. Lee's communication confidence provided support for the effect that meaningful engagement in interaction, and potentially personally meaningful conversational narrative telling supported through continued interaction in particular, might also have on rehabilitation of certain features which contribute to an individual's negotiation of identity. Further, the flexible nature of conversational narratives guided by interaction (not constrained to a single topic or narrative genre), additionally supported identity work through narrative telling similar to the "illness

narrative" genre, such as the identity negotiation work that appeared in the Weekend Weenie Roast narrative, as Mr. Lee reflected on how his patterns of participation in the annual Weenie Roast have drastically changed since his stroke. Similarly, although not reported in detail through situated analysis in these results, narratives related to changes in and work on remediating identity were present throughout this data set. For example, supported by the Carle Volunteering Group photo card, Mr. Lee initiated and told a narrative centered around his struggle and success in returning to his volunteer work at the hospital after his stroke, noting features of the job which initially were difficult for him, the supports in place which helped him to resituate, and eventually, his ability to perform certain duties independently.

Summary of Clinical Implications

Attending to conversational narrative telling in intervention provides a flexible, supportive, and increasingly ecologically valid basis for narrative work in aphasia. Further, capitalizing on the collaborative and personalized aspects of this intervention which supported conversational narrative telling, is directly related to adapting clinical work and the interventions clinicians choose to design to support narrative telling in individuals with aphasia. The additional benefit of attending to embodied and situated communicative abilities inherent to communication and conversational narrative tellings, as opposed to solely linguistic features of narratives was also discussed, as these also provided more comprehensive and authentic understanding of narrative use and abilities.

A major clinical implication introduced by the progression of kernel narratives found in this study, was the clear potential of kernel narratives in supporting subsequent full conversational narratives. As illustrated by the Weekend Weenie Roast narrative, acknowledgement and pursuit of kernel narratives may provide the necessary interactional support which in turn introduces opportunities for meaningful, full conversational narrative tellings and retellings. As mentioned in the discussion section above, indexed kernel (K3) narratives were recognized in particular for potential re-entry into full conversational narrative telling, although instances of accomplishing full conversational narrative tellings from initial narrative tellings of any kernel type were also noted.

Future Directions

The results of this study and discussion provide many potential lines for future research. As this study did not maintain game fidelity, a significant limitation of these conclusions related

to claims which could not be made regarding the ability of the barrier game to support conversational narrative telling. Therefore, a replication of this study maintaining game fidelity would be useful in further discerning patterns of narrative construction across repeated tellings, and viewing the impact of the barrier game on conversational narrative telling. Specifically, utilizing an adapted form of this intervention may further enhance support for game play and conversational narrative telling. Given that the use of captions on the back of Mr. Lee's playing cards was extremely successful in facilitating identification of cards between the pair (i.e., significantly lessening the challenge of card identification), modifying this aspect of this intervention (e.g., utilizing captions only in initial rounds, or changing the card set in each round of the barrier game) might positively increase game difficulty, thereby continually increasing the draw to play.

Similarly, modifying the playing cards used in the barrier game, by incorporating personal clinician-contributed playing cards (i.e., as opposed to the non-personal clinician-contributed cards used in this study, in order to mirror Mr. Lee-contributed personal photographs) might encourage an even greater number of conversational narrative telling overall, as personal photo cards were seen to be more effective in supporting repeated narrative telling. Another limitation of the methods used in this study, was that all playing cards were meant to be personalized to Mr. Lee, thereby potentially lessening the mirroring of card-facilitated conversations to conversations which might be encountered in everyday life, which may focus on the interest of both participants. The use of additional personal clinician-contributed cards therefore might also allow for sharing of full narratives specific to the clinician (the game partner) in addition to conversational narratives related to Mr. Lee's experiences, potentially providing a more holistic and authentic representation of conversational narratives used in everyday life (i.e., those of both interlocutors as opposed to only one). Further situated analysis on the conversational narratives identified, which might address the interactional context which contributed to abbreviated kernel narrative tellings (such as consideration of external versus internal disruptions as in Pratzel, 2008), might provide broader understanding of the particular patterns of kernel narrative use within interaction. Future analysis characterizing the type of supports (e.g., use of technology, asking a family member, direct questioning, repeated attempts to narrative telling, invitation by teller of another interlocutor) which successfully facilitated a

kernel narrative telling evolving into a full conversational narrative, might provide further understanding of the interactional patterns which supported this progression.

Additionally, as the CCRSA measure was the sole clinical measure used in answering this study's fourth research question, additional measures or analyses regarding the impact of this intervention on communication-related factors outside of treatment conditions could be pursued in future research to strengthen these findings. Finally, as this case-study focused on one particular client-clinician pair, future studies assessing the ability of this intervention to support conversational narrative telling would be helpful to track the communicative practices and patterns of narrative telling and retellings across novel participants, providing greater evidence for whether similar patterns (e.g., the indexing of full conversational narratives) would be found.

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APPENDIX A: CODING PROTOCOL

Each narrative should be:

1. Identified and coded initially
2. Confirmed during the next pass

First pass

- Primary coder will watch the session one full time through:
    - Identify instances of narratives of any type; full and kernel
    - Quickly complete a preliminary transcription that pulls out elements of the interaction relevant to the narrative production; consider this as your "evidence" that a narrative occurred
    - Quickly code and characterize the narrative based on the categories and operational definitions given in the spread sheet
        - Code for narrative, activity, and clock time
        - Rewind to beginning of narrative and code for set-up, initiator, tellership, audience involvement, and linearity
        - Create (or re-use, if narrative has appeared previously) very short narrative title that capture the narrative theme (e.g., "Alma construction", "vacation car")

Second pass

- Primary coder will watch the session another full time through:
    - Identify any new instances of narrative that you may have missed the first time
    - Re-assess how you coded previous narratives as they appear while you are watching the session
    - Match your coding with the operational definitions provided, using your transcription and/or multiple listens as a resource. Your coding may either stay the same or change.

Third pass

- Hannah will review coding sheet alongside video, once both passes by primary coder are completed

Consensus

- One full watch of the session alongside completed coding sheet with primary and a secondary coder (Hannah or Jen)
- In cases of coding disagreement:
    - Watch the narrative in question twice through
    - If there is still disagreement, a third party (Dr. Hengst or Martha) will be asked for a final decision on coding

APPENDIX B: CODING DIMENSIONS REFERENCE SHEET

Full Conversational Narrative: Narrative contains an **event** followed by a thematically related **second event** or a related **evaluation,** displaced from the moment of telling at a singular time.

- *Events:* Past, future, or hypothetical actions; answer **what happened** in the narrative
- *Evaluations:* Gives meaning/value to events and descriptions of a narrative by **conveying attitudes, opinions, mental states.** Can be conveyed by verbal or nonverbal commentary.
  - *Verbal:* "It was so scary" "You seriously met him? That sounds awesome!" "That was so nice of her" "I was so happy"
  - *Nonverbal: Tone* ("suuuuure you didn't do it"), *gestures* (*eye roll*, *no big deal shrug*) *non-linguistic exlamations* (*throat clear* indicating disgust)
  - *Combination:* *eyes widening* oh my god he did?
- *Time Displacement Requirement*
  - May depict a mixture of past, future, or hypothetical narrative events and evaluations
    - **Past:** Last night the Cubs won, it was awesome
    - **Future:** The Cubs are gonna play tonight *sharp inhale, finger crossing gesture*
    - **Hypothetical:** If the Cubs win the World Series, everyone will go out to celebrate, that would be so cool
- *Length of a CN*
  - A conversational narrative may be a single utterance
  - A conversational narrative may stretch across a minute of discourse (e.g. due to naming difficulty, interjections), as long as the discourse remains related by a *single narrative theme*
- *Tellership and Linearity*
  - A conversational narrative may have multiple tellers and may not unfold in a linear manner

Requirements:

1. **Specific, past, future, or hypothetical displaced time** is indicated either **verbally** (last Friday, when we went to the farm festival, that time when, tomorrow, if the Cubs win the world series) or **nonverbally** (*holding picture of the farm festival* and here when we went it was fun)
   - Time is displaced from what events occurring in that moment; no event-casting (NO "I am putting this card on eight and then I'm gonna' pick up the next card)
2. Event + related second event
3. **OR** Event + related evaluation

Kernel Narratives: Stretches of narrative discourse which have some elements of a full conversational narrative, but do not fit the full requirements for a full conversational narrative.

- **Kernel 1** [EVENT ONLY]: Narrative contains a specific, displaced time and a **single** **event** only
  - NO related event or evaluation follows
- **Kernel 2** [EVALUATION ONLY]: Narrative contains a displaced, time-specific description with a related **evaluation**
  - NO events
- **Kernel 3** [INDEXICAL]: An entire communal narrative is **indexed** in one or two statements, followed by a related **audience reaction** which indicates that the narrative in reference is shared/understood despite not being re-told (feels "complete"; may seem like an "inside joke")
  - NO outlining/re-telling of narrative events
- **Kernel 4** [ABANDONED]: Interlocutor indicates (through body language, verbally, through tone) they want to tell a narrative, but the attempt is subsequently **abandoned**
  - Time may be displaced, but NO events or evaluations come of the discourse
  - Multiple attempts at constructing an event may occur, but subsequently abandoned (e.g. abandoned after a communicative breakdown)
- **Kernel 5** [HABITUAL]: Displaced time that is **habitual** (every Sunday, at Carle group we always) (may be nonspecific such as "I used to") with at least one **event.**
  - Habitual narratives may be well-developed/lengthy (multiple events and evaluations), but DO NOT narrate a **single, one-time instance** (narrate a **habitual** occurrence)**.**

Conversational Narrative Dimensions: Set-up, initiator, tellership, audience involvement, linearity, theme

Narrative Set-Up: Elicited or not elicited

- **Elicited:** Narrative *initiation/launch* prompted by a **directive question** from another individual
- **Not Elicited:** Narrative initiation **not** prompted by a directive question from another individual (may be prompted by previous conversation, by seeing a certain photo, or abruptly out of want to tell a narrative)

Initiator: Individual(s) who **presents** or **confirms** the first full **event** of a narrative

- **Confirmation** of event: if a question is asked, even if the question provides all of the content of the event, the person who **CONFIRMS** the event is the initiator

- EX: **//H** So you guys went to the Champaign Public Library to watch [the eclipse] then? **//L** Yeah [Lee is initiator]
- By presenting the first event, **anyone who is coded as an initiator is also coded as a teller**

Tellership: Any individual who **presents** or **confirms** [see tellership above] a **novel** event or evaluation to a narrative; can be *single or multiple tellers*

- If multiple novel events/evaluations are coded, and events/evaluations are **presented by different individuals**, the narrative is **CO-TOLD** [*multiple tellers*]

Audience Involvement: Active, Supportive, or Minimal

- **Active:** Any audience member who **asks a clarification** or **leading question during** a narrative telling
- **Supportive:** Any audience member who supports a narrative telling through **verbal** or **nonverbal/nonlinguistic encouragement**, but who DOES NOT present a novel event/ evaluation [i.e. is not a teller]
    - *Verbal:* "oh okay" "mhm" "wow" "yeah" ; does not contribute a novel evaluation, but is supportive of the teller in indicating they are still listening/to continue with the narrative
    - *Nonverbal/nonlinguistic:* maintaining eye-contact with teller, nodding, laughter
- **Minimal: Disinterested or distracted** during the narrative telling, NOT involved in the narrative apart from physically being a part of the context/environment
    - E.g. Jen is physically in the room but occupied with changing the camera batteries

Linearity: Closed or Open

- **Closed:** Events and evaluations precede/follow each other in a single temporally related or causally related manner
    - "We went to the farm festival in the morning and then after we went to church; it was a long day"
- **Open:** Events and evaluations, although related via narrative theme are presented/ordered disjointedly in relation to time and cause; DOES NOT support a single linear progression
    - Differing reasonings resulting in open linear structures; "**confusion, disagreement, and memory lapses**" (Ochs & Kapps, 42)
    - Common in narratives with multiple tellers who have varying versions/interpretations of a narrative
    - **ALL K1, K2, K3, and K4 NARRATIVES ARE FORCE-CODED AS OPEN**
        - By definition, only include no or a single narrative event or evaluation, and therefore do not qualify as closed

APPENDIX C: EXAMPLE OF NARRATIVE RETELLING MATRIX SHEET

Narrative Episode #		Video Clock Time	Activity	Narr Set Up	Initiator	Tellership	Audience Involvement	Linearity	Original Theme Coding	Preliminary Transcription	FINAL Theme	Scondary Themes
Full Narrative	*Kernel Narr*		*C; Bt (#); P; Non*	*Elicitied (+name) /NonElic*	*Lee; Ha; ML; J; Ma; DH*	*Lee; Ha; ML; J; Ma; DH*	*Active/ Supportive/ Minimal*	*Open/ Inconsistent/ Closed*	*(brief descripton)*			
Treatment 1												
F	n/a	11:40-13:00	C	Elicited (Ha)	Lee	Lee, Ha(H), J(H)	Ha = active, supp J = Supportive, Lee=supp	Open	Jet Ski on vacation	//H Have you recovered then? //L No but it was ok //h: We can talk about what you did on vacation then. Cause that would be a good one to talk about. //j: yeah. //I: Okay. So how would you describe your experience? //I: Pretty close to my uh daughter //I: oh yeah //I: we rode with each of us. //h: oh yeah. That's perfect. //I: So we say which one whenever we- we just stayed here come with us //h: yeah //L I couldn't do it myself //H You didi it! //L *poiinting at picutre* but the both of them //H oh the driving? //L Yeah the drive yeah //h: I have never driven one either. I've only sat in the back. //I: I'd like to but //h: I would not //I: oh you wouldn't //h: yeah //j: I think it's scarier to sit on the back cause it's easier to fall off. //I: yeah I was really on (mimics holding on) //h: Sometimes like your fingers are afterwards cause you are holding on to like the other person. //I: yeah right here /h: yeah //I: hold this one and //h: right was it like a loop? [everyone laughs]	Jet ski and daughter	
n/a	K(1)	13:13-13:42	C	Elicited (Ha)	Lee	Lee	Ha = supp J = min	Open	Jet skiing	//h: Yeah those can be a little rough. Did you guys go up in the air at all? //I: Oh yeah //h: yeah //I: and we were the only ones that didn't – I think there's two more that //h: yeah	Jet ski and daughter	
F	n/a	1:06:10-1:06:20	Bt (1)	NonElic	Ha	Ha	L = Supportive	Open	Jetski Card	//h: No No, I- I said something different. Cause I said when you and your daughter went on it, (hands up, shaking head) I don't even think I said jet ski. //I: no no yeah	Performance; jet ski is a hard card	Jet ski and daughter
n/a	K(3)	1:20:30-1:20-36	Bt (2)	NonElic	Ha	Ha	L = Supportive	Open	Jet ski	//h: Number four is the guy on the jet ski- //I: jet-sk //h: like when you were on vacation [laughs] //I: yes [laughs]	Jet ski and daughter	
F (f)	n/a	14:30:00	Bt (3)	NonElic	Lee	Ha, Lee	Lee=supp, Ha=supp	Closed	Should bring in a jet ski picture next time	//H I want a picture of you on the jet ski //L Oh yeah I'll try to bring one //H yeah cause that would be cool //L Yeah it would be	Bringing In jet ski pic	
F (f)	n/a	14:47:15	Bt (4)	NonElic	Ha	Ha, Lee	Lee=supp, Ha=supp	Open	Mr. Lee said he would bring a jetski picture in	//H Number eleven is the picture of the guy with the jetski, and you said that you're gonna bring the jetski in //L Yeah that's right I'll get Ms. Lee //H I'm sure youre face is gonna be really good in them you're gonna be like 'ahhh" *jetski holding on motion*	Bringing in jet ski pic	Jet ski and daughter
Treatment 2												
n/a	K (5)	6:25 - 6:40	BT #1	NonElic	Ha	Ha	Lee: supp	Closed	Jet ski	//H Is this the jet ski on the water? //Lee Yeah, I'm so sorry... Jet stream, jet ski //H This is my fault each time that we do it because I say "Oh when you went with your daughter" and I never say the word Jet ski because I get excited about... //Lee Okay, Jet ski ..skill... //H Jet ski on the water, yeah	Performance; jet ski is a hard card	
n/a	K (3)	2:50 - 3	BT #3	Elicited (hannah)	Ha	Ha	Lee = act	Open	Jet Ski	//H The jet ski one? //Lee yes, jet ski. //H Ah, yes the jet ski. //Lee Why did I get that one messed up? //H No, because...but you did do that over the summer, didn't you (smiling) //Lee (nodding) Yes, right, yeah	Jet ski and daughter	Jet ski is a hard card
Treatment 11												
n/a	K (3)	1:20	Captioning	Nonelic	J	J, Lee	Ha=supp, J=supp, Lee=supp	Open	Jet ski with daughter	///J And that's you on the jet ski /L Yea //H it still looks like one person //L It does it really does //J Yeah you were really crammed in there //L Yeah *ee* (crunching motion) well ya gotta //H You need to *laughter*	Jet ski with daughter	Who is on the jet ski
F	n/a	23:30	Bt (1)	Elicited (Ha)	Lee	Lee	Ha=active, supp, Lee=supp	Open	Jet ski with daughter	//H The vacation over the summer? Yeah //H Yeah it really does look like there's only one person. //L I know it I'm gonna have to ..drop //H Do you remember holding on that tight? //L Oh man I was //H Yeah *Ldoes crunched up motion* and I did that //H But did you guys come close to falling off or anything? //L Yeah //H you did? //L No I didn't fall over no but Everybody one or two or three of them had alraedy //H Had wiped out? //L Yeah //H oh man yeah that's funny //L We thought were gonna do it!	Jet ski with daughter	
n/a	K (3)	)57:18	Bt (3)	Nonelic	Ha	Ha	Lee=supp	Open	Jet ski with daughter	//H I'm just thinking of you like this *squeezes arms around self* //L *laughs* yup the way it was doin all the time, everyday //H Yup this is the jetski? //L Yeah yeah //H Yeah so jetski on vacation is number 8	Jet ski with daughter	
n/a	K (3)	1:42:12	Bt (6)	Nonelic	Ha	Ha	Lee=supp	Open	Jetski with daughter	//H K so number six is you and your daughter on the jetski //L Jetski //H Yeah //L Right here the picture with the jet I something got it yeah *looks up at H nodding* we wanted, were gonna do it //H *holdin gmotion* holdin tight on the jetski on vacation //L Thats right yeah //H Yeah	Jet ski with daughter	

Carle | Korean War | Alma | Jet Ski | Sheet1 | Matlock | Performance | Eclipse | Lucille | Library | Fishing | Duck Donuts | Shrubs | Prairie Farm | Cubs | Illini | Sea Turtl

APPENDIX D: EXAMPLES OF BARRIER SESSION PLAYING CARDS

Mr. Lee-Contributed Cards

Clinician-Contributed Cards

APPENDIX E: COMMUNICATION CONFIDENCE RATING SCALE FOR APHASIA (CCRSA) (Babbit and Cherney, 2010)

|_____|_____|_____|_____|_____|_____|_____|_____|_____|_____|_____|

0 10 20 30 40 50 60 70 80 90 100

Not confident **Moderately confident** **Very confident**

1. How confident are you about your ability to talk with people?
2. How confident are you about your ability to stay in touch with family and friends?
3. How confident are you that people include you in conversations?
4. How confident are you about your ability to follow news and sports on TV?
5. How confident are you about your ability to follow movies on TV or in a theatre?
6. How confident are you about your ability to speak on the telephone?
7. How confident are you that people understand you when you talk?
8. How confident are you that you can make your own decisions?
9. How confident are you about your ability to speak for yourself?
10. How confident are you that you can participate in discussions about your finances?

APPENDIX F: KEY TO TRANSCRIPTS OF ORIGINAL CODING DATA

- **//Interlocutor Initial**—marks the start of a new utterance by an interlocutor (utterances follow each other directly; a new line is **not** started in the transcript for a new utterance)
    - //L = Mr. Lee, //H = Hannah, //J = Jennifer, //M = Martha
    - EX: //H I want a picture of you on the jet ski //L Oh yeah I'll try to bring one //H yeah cause that would be cool //L Yeah it would be

- ***non-verbal gesture*—**a short description of the gesture, placed in the transcript closest to the verbal utterances with which they were paired
    - EX: *eye roll*, *sits forward in chair*, *L points towards window*, *holding picture of ____*, *laughing*

- **....** —marks a noticeable **unfilled** pause or trailing off in the speech of an interlocutor (i.e., no other interlocutor fills the pause with their speech)
    - EX: //L That one was there...on that one

- **XXX**—marks an unintelligible utterance

- **Text—text** – indicates abrupt starts and stops to speech within/between words
    - EX: //L calen—um—dog

- **"Quotation"**–indicates use of reported speech
    - EX: //L I couldn't do some of these things I thought "boy I can do this gotta' do this"

- **[Name]**—indicates use of a pseudonym in place of real name used
    - EX: //M [Ms. Lee] was saying

- **Question mark (?)**—indicates a questioning intonation pattern
    - EX: //H What did you do at Carle this week?

- **Comma (,)**—indicates continuing intonation pattern
    - EX: //H Number eleven is the picture of the guy with the jetski, and you said that you're gonna bring the jetski in

- **Period (.)**—indicates end of an utterance by an interlocutor; is only used if an interlocutor strings multiple, successive utterances in one turn
    - EX: //L Usually they do this every year, it's pretty good. They'll get their jackets or something like that

- **Exclamation mark (!)**—indicates an exclamatory intonation pattern
    - EX: //L Oh yeah they are!

- **Bold text**—indicates emphasis placed on a word/utterance by a speaker
    - EX: //L **We needed that**

- Blue text—marks the first event presented (verbally and/or non-verbally)
    - EX: //H we almost got caught by these two pictures
    - EX: //L the other day yeah I was gonna get out and say says yesterday I was gonna say something

- Green text—marks the second event presented, and any other events presented thereafter

- Purple text—marks the presentation of an evaluation (verbally and/or non-verbally)
    - EX: //H We wrote captions with very long names on them today too //L Yeah //H so we made it harder

- Red text—marks overt abandonment of a narrative telling
    - EX: //L I don't know I can't get it right now maybe next time

APPENDIX G: KEY TO TRANSCRIPTS IN CURRENT DOCUMENT

- **Interlocutor initial:** -- marks the start of a new utterance by an interlocutor; a new line is started with each interlocutor (L= Mr. Lee, H= Hannah, J= Jennifer, M= Martha)
    - EX: L: It's the clock
      H: (laughs and nods)
      L: The you know clock and Gina

- **(non-verbal gesture)—**a short description of the gesture, placed in the transcript closest to the verbal utterances with which they were paired
    - EX: (L and H laugh), (squeezing gesture)

- **....** —marks a noticeable **unfilled** pause or trailing off in the speech of an interlocutor (i.e., no other interlocutor fills the pause with their speech)
    - EX: H: Three is Matlock and his hotdog…and this is gonna' be you

- **Bold text**—indicates emphasis placed on a word/utterance by a speaker
    - EX: L: **We needed that**

- **Text—text** – indicates abrupt starts and stops to speech within/between words
    - EX: L: calen—um—dog

- **"Quotation"**–indicates use of reported speech
    - EX: L: I couldn't do some of these things I thought "boy I can do this gotta' do this"

- **[Name]**—indicates use of a pseudonym in place of real name used
    - EX: M: [Ms. Lee] was saying

- **[Text]—**indicates a word that was not explicitly said in the excerpt of the transcript, however was either referred to elsewhere or implied
    - EX: J: We were just talking about how there's so much construction by [Alma]

- **Question mark (?)**—indicates a questioning intonation pattern
    - EX: H: What did you do at Carle this week?

- **Comma (,)**—indicates continuing intonation pattern
    - EX: H: Number eleven is the picture of the guy with the jetski, and you said that you're gonna bring the jetski in

- **Period (.)**—indicates end of an utterance by an interlocutor; is only used if an interlocutor strings multiple, successive utterances in one turn
    - EX: L: Usually they do this every year, it's pretty good. They'll get their jackets or something like that

- **Exclamation mark (!)**—indicates an exclamatory intonation pattern
    - EX: L: Oh yeah they are!

- Red text—marks overt abandonment of a narrative telling
    - EX: L: They're coming down…we can come back to it.

- **CONT.** – marks an excerpt of the transcript which was not included in the figures in this document, as to succinctly represent key points of tellings
    - L: Yeah yeah, I see
      CONT.
      M: And it's both him and his wife

APPENDIX H: TRANSCRIPTION CONVENTIONS FROM HENGST (2001)

Transcription Guidelines Used in Transcribing Elicited Narrative Probes in the Current Study

Preferred Codes	**Description**
Color Code	Multiple conversations are marked by color coding talk of dyads
Bold	Marked voice change for emphasis. Bold speech, raising voice.
(what)	Questionable transcription (sounds, including vocalizations, are in grey)
XXX	Unintelligible sequence, roughly XXX per syllable
…3…	Number of seconds of relative silence (dots correspond to number of seconds)
…	Notes a **pause** in speech of less than 1 second
^^h	Audible inhalations and exhalations
[cough]	Descriptions of non-speech sounds and audible gestures such as cough, sigh, laugh, tongue click, etc.
We- well-	Word cut off short
O:kay	Indicates a prolonged sound or syllable
Hey dad,	Voice spoken with decreased intensity, kind of like the opposite of bold
<u>And she fell it was so funny [laughing]</u>	Indicates the speaker was laughing while saying this phrase
/gin/	Phonetic transcription using International Phonetic Alphabet
S l o w	Stretched out or slower rate relative to surrounding speech
Hurryup	Rapid rate relative to surrounding speech (To get condensed font on a PC, highlight the word > right click > fonts > go to the advanced tab > spacing, choose "condensed." On a Mac, click "format" at the top > fonts > advanced > spacing "condensed")
[unintelligible conv. ……10…….] [chewing…3…] [laughing…..5……]	Long stretch of unintelligible vocalization/sound (dots correspond to number of seconds)
(J):	Participant is overhearer only, in room but not participating in conversation or is not a potential agent
TV:	Documentation of background noise

Okay.	Period (.) indicates end of turn intonation
A dog,	Comma (,) indicates continuing intonation pattern
(Jester)	When a participant's real name is used in conversation, replace it with their (pseudonym)
(BK):	Indicates any background content. There should always be a "conversation participant" line for (BK) in the transcription.
A dog?	Question mark (?) indicates a questioning intonation pattern
S K I	Speaker is saying the names of letters, as if spelling out loud
*flapping arms	Activity note in black correlates temporally to * in a line of speech produced by that person. Used here primarily to record iconic/communicative gestures
m hm	Nasal agreement
uh huh	Oral agreement
m m	Nasal disagreement
uh uh	Oral disagreement
m |m	Nasal "I don't know"
I d'know	Oral "I don't know"
Hm?	Nasal Question
Uh-oh	"Oh no"

APPENDIX I: CARD PLACEMENT DATA SHEET EXAMPLE

Moderator:_____ Fall 2017 BTP Data Collection Date:_____

Clinician:_____ TX Session #: _____

Card Set: _____

Trial 1		
Director: _____	**Matcher:** _____	
Place	Card #	+/- Card Placement
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Trial 2		
Director: _____	**Matcher:** _____	
Place	Card #	+/- Card Placement
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Trial 3		
Director: _____	**Matcher:** _____	
Place	Card #	+/- Card Placement
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Notes: