

Research Note

What's on Your Mind? Conversation Topics Chosen by People With Degenerative Cognitive-Linguistic Disorders for Communication Boards

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Purpose: Conversational topics chosen by a group of adults with degenerative cognitive-linguistic disorders for personalized communication board development were examined. The patient-generated themes commonly selected are presented to guide treatment planning and communication board development.

Method: Communication boards were created for 109 adults as part of a larger research project. One autobiographical topic that each participant would enjoy discussing multiple times was represented on each communication board with 16 pictures and word labels. For this review, topics were collapsed into general themes through a consensus process and examined by gender and age.

Results: Sixty unique conversational topics were identified from 109 participants and collapsed into 9 general themes: Hobbies, Family, Travel, Work, Home/Places I've Lived, Sports/Fitness, Religion, Animals, and World War II. Age and gender produced variations in themes chosen, though no significance in rank orders was found across groups.

Conclusions: Topics selected by adults with degenerative cognitive-linguistic disorders for communication boards resemble common conversational adult themes and do not center around basic needs or medical issues. Differences in gender and age for topic selection tend to be based on traditional roles. These general themes should be used when creating personalized communication boards for those who benefit from conversational aids.

Many individuals who have conversed with elders have the experience of hearing repeated stories "of old." People reminisce about sitting at Grandmother's table listening to stories about family life in the 20th century. Sharing tales of one's life experiences provides an avenue to connect with others in a meaningful way. The practice of life review is the psychological work of old age that involves putting a lifetime of experiences into some meaningful perspective (Harris & Plan, 2012). Small talk among elders provides a shared sense of meaning (Boden & Del Vento Bielby, 1983). Even for older adults with restricted cognitive-linguistic abilities, conversation based on reminiscence acknowledges, affirms, and values life experiences as topics of discussion, adding to meaningful

social roles and improving health-related quality of life (Hilari & Northcott, 2006). Telling stories about one's life provides a sense of identity, meaningfulness, and continuity, even for those with cognitive or linguistic challenges (Westius, Kallenberg, & Norberg, 2010).

Older adults with cognitive-linguistic disorders, including those living with probable Alzheimer's disease (AD) or primary progressive aphasia (PPA), are no less inclined than their age-matched peers to want to socialize and participate in conversation through storytelling (Davidson, Worrall, & Hickson, 2003). However, given challenges in their cognitive-linguistic abilities, such as word-finding problems, opportunities for sharing are significantly restricted (Davidson, Howe, Worrall, Hickson, & Togher, 2008). Disease progression limits the ability to spontaneously recall and discuss enjoyable life experiences, potentially resulting in social isolation (Beukelman, Garrett, & Yorkston, 2007).

For the adult with probable AD, changes in language expression, which may affect conversation and meaningful verbal interaction, are evident in the early stages of the disease, with deficits in comprehension following shortly

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thereafter (Bourgeois & Hickey, 2007). Communication success varies among this population. Significant reduction in word-finding results in nonspecific, empty speech and, eventually, limited verbal output. Verbal perseveration, difficulties with topic maintenance, and disordered turn-taking are typical language deterioration sequelae (Kempler, 1995; Nicholas, Obler, Albert, & Helms-Estabrooks, 1985; Ripich & Terrell, 1998). Persons with AD can improve verbal contributions to maintain a social network when supported by external memory aids (Bourgeois, Dijkstra, Burgio, & Allen-Burge, 2001; Bourgeois, Fried-Oken, & Rowland, 2010; Fried-Oken et al., 2012).

Another clinical population that is challenged by language disorders that reduce spontaneous conversation is adults with PPA, which is a neurodegenerative syndrome characterized by an insidious onset of language impairment with progressive loss of language function (Mesulam, 2003). The hallmark symptoms of PPA include deficits in word finding, word usage, word comprehension, and sentence construction, although cognitive skills remain intact for at least 2 years postdiagnosis (Gorno-Tempini et al., 2011). Mean age at onset is late 50s (with a wide range), rate of decline is variable, and there does not seem to be a gender bias (Mesulam, 2013). Eventually, most individuals with PPA present with either AD or frontotemporal dementia (Mesulam et al., 2008). The impact of PPA on individuals and their social networks is profound.

Providing vocabulary that is collaboratively chosen by people with cognitive-linguistic disorders to help them maintain socially relevant and meaningful roles in their daily lives should be a primary goal for every speech-language pathologist. A significant correlation has been found among language impairment in dementia, increased social withdrawal, and reduced participation in social activities (Potkins et al., 2003). Providing communication support to enhance effectiveness for getting needs met, discussing important issues, and maintaining social connections is imperative for both people with AD and PPA and their communication partners (Bourgeois, Dijkstra, & Hickey, 2005; Morhardt & Spira, 2013). There is evidence that augmentative and alternative communication (AAC) provides a level of conversation support and should be part of all treatment (Fried-Oken et al., 2012; Fried-Oken, Rowland, & Gibbons, 2010; Rogers, King, & Alarcon, 2000). In fact, the overall objective of providing AAC support is to help persons with communication impairments increase their participation in desired activities and create opportunities for social interaction through various modes of communication (Bourgeois et al., 2010). This goal mirrors the philosophy of the participation model, which the American Speech-Language-Hearing Association has endorsed as the standard for AAC assessment and intervention (Beukelman & Mirenda, 2013) and is a basic value of the “life participation approach to aphasia” (LPAA Project Group, 2014).

How Are Topics for AAC Supports Chosen?

When providing AAC support, it is vital that topic and vocabulary selection take priority in order to create

meaningful and useful tools. This challenge is complex: Vocabulary items must perform the many functions fundamental to social interaction (Light, 1988) while remaining personally relevant. Balandin and Iocono (1998) stated that people who rely on AAC must have access to vocabulary that is (a) comprehensive enough to meet their communication needs; (b) easily accessible for quick messaging; (c) appropriate for age, gender, and group membership; and (d) applicable to the context in which it is used. For those who rely on picture symbols instead of orthography, AAC systems will be effective only if appropriate vocabulary has been chosen, because it is very difficult to generate new messages without spelling (Morrow, Mirenda, Beukelman, & Yorkston, 1993). Unfortunately, adults with complex communication needs often must rely on lexica chosen for them by other people (e.g., family members, professionals; Horton, 2007). This is in stark contrast to adults who use speech and residual language systems and are able to access their internal lexica that give them free reign over the topics they choose. As speech-language pathologists create communication tools for adults who use AAC, they must go beyond the lexical tokens assumed for basic needs or medical symptoms to provide conversational access to topics associated with socially meaningful roles. Having access to an individual’s lexicon, with meaningful conversational topics, is crucial because it can either enhance or diminish the user’s communicative effectiveness and motivation (Balandin & Iocono, 1999).

The availability of a list of patient-generated conversation topics could yield meaningful information for clinicians attempting to program and design AAC tools for adults with progressive or chronic cognitive-linguistic impairments. Horton (2007) has suggested that, for adults with chronic linguistic impairments, the speech-language pathologist has more control over topic selection than the patient. This leads to limited categories of topics and choices related most often to the person’s communication problems (Horton, 2007). There is a small body of evidence regarding processes for choosing topics for AAC conversational aids by adults living with neurogenic communication disorders. Common vocabulary selection techniques include selecting words from environmental and categorical inventories, keeping a communication diary, starting with a core vocabulary list, and just filling in a blank page (Dark & Balandin, 2007; Morrow et al., 1993). According to Morrow et al. (1993), when these techniques were compared for most words chosen, checking off words from a vocabulary list provided the greatest assistance and yielded more words than any other process. Other studies have looked specifically at issues of vocabulary inclusion in AAC systems for older adults by analyzing topic and word-use patterns of older women (Stuart, Vanderhoof, & Beukelman, 1993). Topic preferences for older women included family life and social networks. Topics chosen for scripts in aphasia treatment have been examined as well (Holland, Halper, & Cherney, 2010). After analyzing 100 scripts chosen by persons with aphasia, the authors concluded that adults with language impairments are like most folks: They choose to talk about life

experiences, family connections, and information necessary for daily activities and ordinary normal life. Another popular source of vocabulary includes communication picture books, speech-generating devices, or AAC apps on mobile technologies that present pre-stored vocabularies and word grids that are not personalized for the lexical needs of the user. Common picture-based Apple mobile technology apps, for example, offer users opportunities to customize boards or to use preloaded boards, with topics ranging from workplace, shopping, clarification, emergency information, money, reading, yes/no responses, leisure entertainment, control, and social expression (Jane Farrall Consulting, n.d.). Most commercially available preloaded word grids are designed for children; their graphics are not age appropriate for the adult population. Picture and photo compilations also are available. The Aphasia Institute (n.d.), for example, has developed a series of adult-oriented pictographic resource booklets that range from "What Is Aphasia?" to "Talking to Your Doctor [or Counselor or Chaplain]." It is not apparent whether any of these topic boards are based on patient-generated vocabulary. Most have been chosen by the developer or therapist to meet the needs of their patients or users. Often, messages are inappropriate and can cause technology abandonment and lack of adoption (Johnson, Inglebret, Jones, & Ray, 2006; Morrow et al., 1993). The ultimate goal is to personalize the lexicon so that it serves as a language prosthesis for individuals with neurogenic communication disorders.

Our research agenda is to understand how to optimize the development and use of low-tech (nonelectronic), inexpensive, personally relevant communication boards so that adults with degenerative cognitive-linguistic disorders maintain or improve verbal interaction and conversational engagement in daily life events. The data presented in this article were gathered as part of a series of larger research studies that examine the efficacy of introducing AAC to individuals with AD and PPA. This report documents the direct inclusion of adults with cognitive-linguistic disorders as informants in the process of vocabulary selection and highlights the topics that can contribute to the meaningful and relevant social roles for this clinical population. Here, conversational topics chosen by a large number of adults with degenerative cognitive-linguistic disorders for low-tech communication boards are examined in order to determine whether common themes appear that could be recommended for others.

Method

Participants

Participants included 109 adults with degenerative cognitive-linguistic disorders, resulting from either probable AD or PPA, confirmed by a board-certified neurologist. Probable AD was diagnosed using the National Institutes of Health (NIH) criteria (McKhann et al., 1984); a diagnosis of PPA was made following the Gorno-Tempini et al. (2011) criteria. On the basis of clinical staging criteria (McKhann

et al., 1984; Sapolsky et al., 2011), participants fell within the mild to moderate range for both AD and PPA. Participants were recruited from the Layton Aging and Alzheimer's Disease Center at Oregon Health & Science University, one of 30 national AD centers, and from local clinics.

There were 82 adults with probable AD (28 men and 54 women) with an average age of 78 years (range = 55–94 years). The 27 participants with PPA included 16 men and 11 women with an average age of 69 years (range = 52–80 years). All participants were ambulatory and had adequate sensory skills for hearing and vision. The 109 participants were grouped by age. With 75 years as the median age, two groups were created: 52–75 years for the younger group and 76–94 years for the older group. Because individuals who rely on AAC often require the assistance of partners to identify words and messages for their communication supports (Stuart, Beukelman, & King, 1997) and because the goal of this research addresses vocabulary needs in a bidirectional conversation, one family member or familiar informant, identified by the participant, assisted in topic selection. The 109 family members and familiar informants queried were 37 men and 72 women, all over the age of 18 years, with the following relationships to the participants with probable AD or PPA: 67 spouses, 32 adult children, five paid caregivers, three friends, one mother, and one daughter-in-law. Participants and partners were fluent English speakers. Most participants lived in private residences and assisted-living settings in Oregon and Washington. About 13% of the participants lived in Alzheimer's care facilities, adult foster care, and skilled nursing facilities. All participants provided written informed consent under the approval of Oregon Health & Science University's institutional review board.

Procedure

Choosing the topics and the words. The research studies that included the 109 participants for this report required participants to engage in structured conversations with a research associate (RA). The RA instructed participants and their family members or familiar informants to choose a topic that they would find enjoyable discussing multiple times with the RA. On most occasions, participants and their informants spontaneously and collaboratively determined a preferred topic. For participants who had difficulty generating a topic, the RA provided a suggested conversational topics list, which is an adapted version of a compilation of 100 autobiographical memories produced by older adults (Svoboda, 2001). The abridged conversational topics list, included in the Appendix, permitted participants to check off their topics of interest and hone in on one favorite topic for multiple conversations. In a collaborative effort between the RA, the participant, and his or her informant, a topic was selected. Ultimately, the topic for conversation was approved by the participant, and the RA simply acted as facilitator.

Once the main topic was selected, the RA further worked with the participant and his or her informant to

determine 16 supporting words or phrases and photographs to describe that topic. Once again, a collaborative and personally relevant process occurred whereby the RA was provided with personal photographs and stories to make the communication board completely individualized. The RA made a 16-grid communication board on 11×17 laminated paper. Each of the 16 cells contained a photograph with the word displayed above it (target word). Each photograph and accompanying word was related to the conversational topic. If the target word was abstract or not accompanied by a personal photograph, the RA, participant, and informant would select a photo from the Internet that was meaningful to the participant. For example, a woman who wanted to include the word *vacation* on her communication board chose a picture of the beach to accompany the target word. A man wanted the target word *hot* and chose a thermometer for the photograph. Participants approved of all selections.

Categorizing topics into themes. A consensus process was used by the research team to identify common themes across the 109 communication boards. We followed a process described by Luborsky and Rubinstein (1995), whose in-depth discussion of sampling in qualitative research includes reference to *topics* and *themes*. According to their typology, *themes* are classification structures that allow the organization of data into broad categories (Luborsky, 1994). *Themes* refer to life stories that are organized around personal meaning. *Topics* are data that do not have a separable existence apart from their occurrences embodied within routines, habits, and life stories. It follows that topics are embedded into themes. For this study, each theme and its nested topics were reviewed and refined by study authors until consensus was achieved. By the end of the consensus process, a list of nine themes covering 60 topics from 109 communication boards was generated, which was coded at a level of 95% reliability. The two-step consensus process is summarized in the following paragraphs.

The goal of Step 1 was to extrapolate a list of general themes from the 109 communication boards (raw data), creating topic-to-theme assignments. First, all communication boards were reviewed to confirm that one chosen topic referred to the 16 target words on each communication board. From the 109 boards, it was determined that there were 60 unique topics that did not overlap in content. Next, all topics were entered into an Excel spreadsheet and parsed into the initial list of general themes. Three rules were applied: (a) quantity—three or more related topics became a theme; (b) general rather than specific—topics were assigned to a superordinate (general) rather than subordinate (specific) theme (e.g., if the 16-word list for a board included *law firm*, *clerk*, *court*, and *judge*, the assigned topic was work (superordinate) as opposed to the subordinate topic of law career); and (c) goodness-of-fit—some boards did not fit neatly into one specific topic. In that case, two research associates looked at the 16 words that were chosen for the communication board, and consensus was obtained about which theme most frequently was represented. The stated topic of one board, for example, was *childhood summer*

vacations and included 10 words related to travel and six words related to vacationing at a summer cabin. This topic was subsequently sorted into the general *travel* theme. To complete Goal 1, the spreadsheet was reviewed and further honed by the initial research staff for topic-to-theme assignment. Throughout the process, recurring themes immediately became evident, with some themes having as many as 17 topics (e.g., *Hobbies*). At this phase, 11 themes were created from the topics.

The goals in Step 2 were to refine the themes and obtain strong interrater reliability for topic-to-theme assignment. Team members who had not participated in Step 1 independently reviewed the topics spreadsheet and assigned themes based on the established rules. Interrater reliability was computed repeatedly during this consensus process as themes were collapsed further. Consensus was reached at 95% interrater reliability with four researchers.

Results

From the 109 communication boards created for individuals with cognitive-linguistic disorders, 60 unique conversational topics were identified and collapsed into nine common themes. These themes were *Hobbies*, *Family*, *Travel*, *Work*, *Home/Places I've Lived*, *Sports/Fitness*, *Religion*, *Animals*, and *World War II*. Table 1 lists the unique topics that formed each theme. *Hobbies* contained the most conversational topics ($n = 24$), followed by *Family* ($n = 21$) and *Travel* ($n = 19$). *Animals* ($n = 4$), *World War II* ($n = 3$), and *Religion* ($n = 4$) were discussed the least.

The themes were examined by participant groups for gender and age differences. Results are displayed in Tables 2 and 3. The data could not be examined by diagnostic group (probable AD versus PPA) due to the uneven number of participants in each group and a confounding Age \times Diagnostic Group variable. Most of the participants with PPA fell into the younger group (52–75 years), and all participants with probable AD fell within the older cohort (76–94 years). It is not possible to determine, at this point, whether the descriptive results reflect age or diagnostic status, so data will be reported using age as the independent variable.

Themes by Gender

When gender is considered, as shown in Table 2, within the nine themes there were 65 topics selected by women and 44 topics selected by men. Stratifying the group by gender, the largest discrepancies are related to the themes of *Home/Places I've Lived*, *Sports/Fitness*, and *Religion*. Results from a Mann-Whitney *U* test to examine rank orders by gender indicated a *U* value of 40.5, with results not significant at $p < .05$. Although the results were not of statistical significance, there are notable descriptive differences. Women were twice as likely to choose *Home/Places I've Lived* as a theme (14%) than were men (7%). Only women chose *Religion* as a theme (6%). Men were more than twice as likely to choose *Sports/Fitness* as a theme (16%) than were women (5%).

Table 1. Nine common themes identified from 60 unique topics generated from 109 communication boards.

Themes and topics	No. of communication boards
Theme 1: Hobbies (<i>n</i> = 24)	
1. Hobby, general	1
2. War/politics	1
3. Music	1
4. Art	2
5. Fine arts	1
6. Gardening	6
7. Yard sales	1
8. Sewing	1
9. Storytelling	1
10. Cooking	2
11. Classic cars	1
12. Crafts	1
13. Yard projects	1
14. Model planes	1
15. Shopping	1
16. Holiday preparation	1
17. Things I love to do	1
Theme 2: Family (<i>n</i> = 21)	
18. Family, general	18
19. Friends and family	3
Theme 3: Travel (<i>n</i> = 19)	
20. Travel, general	14
21. Road trips	1
22. Hawaii (vacation)	1
23. Places we vacation	1
24. Childhood summer vacations	1
25. Places of interest	1
Theme 4: Work (<i>n</i> = 12)	
26. Work, general	4
27. Jets	1
28. Military	1
29. Music	1
30. Farming	1
31. Nursing	1
32. Store detective	1
33. Teaching	2
Theme 5: Home/places I've lived (<i>n</i> = 12)	
34. Home, general	1
35. Florida	1
36. Madrid, NM	1
37. Alaska	1
38. Panama	1
39. Mexico	1
40. Kansas	1
41. Guatemala	1
42. North Dakota (growing up)	1
43. Where I've lived	1
44. Growing up (with my family)	1
45. Saudi Arabia	1
Theme 6: Sports/Fitness (<i>n</i> = 10)	
46. Fitness, general	1
47. Physical activities	1
48. Sports, general	1
49. Fishing	2
50. Hunting	1
51. Boating	1
52. Sportsman's activities	1
53. Golf	1
54. Bowling	1
Theme 7: Religion (<i>n</i> = 4)	
55. Religion, general	3
56. Church groups	1

(table continues)

Table 1. (Continued).

Themes and topics	No. of communication boards
Theme 8: Animals (<i>n</i> = 4)	
57. Animals, general	2
58. Pets	1
59. Horses	1
Theme 9: World War II (<i>n</i> = 3)	
60. World War II, general	3

Themes by Age

The themes were then examined by age, as shown in Table 3. Two participant groups were formed: younger (ages 52–75 years) and older (ages 76–94 years). Within the nine themes, there were 47 topics selected by younger participants and 62 topics selected by older participants.

Stratifying the group by age, we found that the largest discrepancies are related to the themes of Hobbies, Travel, and Work. Results from a Mann-Whitney *U* test to examine rank orders by age indicated a *U* value of 39.5, with results not significant at *p* < .05. Again, important descriptive differences occur, even though data were not statistically significant. Older participants were more than twice as likely to choose Hobbies as a theme (29%) than were younger participants (13%). Younger participants were more than twice as likely to choose Travel as a theme (26%) than were older participants (11%). Younger participants were more than twice as likely to choose Work as a theme (17%) than were older participants (6%).

Discussion

Kagan, Black, Duchan, Simmons-Mackie, and Square (2001) demonstrated that communication supports can enhance conversation for adults with language disabilities. The questions still remain: What vocabulary or autobiographical topics should be represented in their communication supports, and who should choose the vocabulary? Conversations, as described by Simmons-Mackie (2000), are the “authentic, usually spontaneous, communication associated with social interaction—the everyday, ordinary talk that serves dual goals of exchanging messages and fulfilling social needs” (p. 171). More than half of utterances

Table 2. Themes chosen by gender.

Theme	Male: <i>n</i> = 44		Female: <i>n</i> = 65	
	<i>n</i>	%	<i>n</i>	%
Hobbies	8	18	16	25
Family	8	18	13	20
Travel	9	20	10	15
Work	6	14	6	9
Home/Places I've Lived	3	7	9	14
Sports/Fitness	7	16	3	5
Religion	0	0	4	6
Animals	2	5	2	3
World War II	1	2	2	3

Table 3. Themes chosen by age.

Theme	Younger (52–75 years): n = 47		Older (76–94 years): n = 62	
	n	%	n	%
Hobbies	6	13	18	29
Family	9	19	12	19
Travel	12	26	7	11
Work	8	17	4	6
Home/Places I've lived	4	8	8	13
Sports/Fitness	5	11	5	8
Religion	1	2	3	5
Animals	2	4	2	3
World War II	0	0	3	5

produced by adults in daily conversation are small talk (King, Spoeneman, Stuart, & Beukelman, 1995). *Small talk*, according to Schneider (1988), refers to short exchanges used in socially prescribed ways for successful interactions and creates adherence to social norms rather than interest in specific conversational topics among adults. Small talk and conversation are negatively affected by language impairments in persons with probable AD or PPA. Whether conversants fail to include persons with dementia in their social banter or the person with PPA chooses not to engage in conversations due to the rapid rate of information exchange, the results are the same: Social networks shrink, and verbal participation is reduced (Davidson et al., 2008; Hilari & Northcott, 2006).

The topics chosen by men and women in the two age groups varied and were indicative of traditional roles (Coates, 2014). These results, which are descriptive in nature, are similar to those obtained by Stuart, Vanderhoof-Bilyeu, and Beukelman (1994), who also identified topic disparities in daily conversation between cohorts of differing genders, and those by Boden and Del Vento Bielby (1983), who found differences in topic references between younger and older adults. These differences are in line with the experiences of an older generation who may have embraced roles that might be considered more rigidly gender-specific than those in younger generations. Schneider (1988) examined the conversations of 77 adults of all ages and identified three types of small talk: deictic or place reference (those topics relating to immediate or extended surroundings), private sphere (personal situations, well-being, family, work, hobbies), and social sphere (politics, current events, news, culture, TV, movies, sports). Our research confirms those topics, with the private sphere category most represented. Older adults, who use conversation most often to reminisce and retell stories (Stuart et al., 1993), rely on this category more. These differences may reflect the fact that older individuals have more time to devote to hobbies and private or personal sphere topics, whereas younger individuals are more likely to have the stamina for travel and are more likely to be working or to have worked recently.

The research presented here reflects the direct inclusion of individuals with cognitive-linguistic disorders as

informants in the vocabulary process, rather than simply trying to extrapolate from speech patterns of nondisabled individuals or other stakeholder perceptions. Within the AAC field, the imperative to include the perspectives of people who rely on AAC is paramount (Balandin & Morgan, 2001; Ray, 2014). This is not always the case when lexical aids are chosen for individuals with cognitive-linguistic disorders (Horton, 2007). The evidence provided shows that the topics about which adults with cognitive-linguistic disorders choose to converse, using low-tech AAC supports, deal with life experiences, sharing personal stories, and staying connected to families and friends. These are similar to the topics that Holland et al. (2010) identified from 100 short scripts that were constructed by people with aphasia and their speech-language pathologists. For both aphasia scripts and low-tech communication boards, topics are personal, narrative, and revolve around interests that define who the speakers are. What is most revealing about our large sample of chosen topics is that none of the topics concerned basic needs. Indeed, there seemed to be no desire among these participants to discuss topics such as mobility, health care, dressing, or housekeeping. Holland et al. (2010) noted the same personal topics, suggesting that the typical focus of aphasia treatment should be reexamined so that quality of life after aphasia is the goal rather than training words and grammatical structures to approximate pre-aphasia communication life. In clinical settings, when asked what topics are needed for parents with cognitive-communication impairments, families often respond with personal hygiene, medical symptoms, and nutrition, whereas the parents themselves may prefer discussing politics, sports, or TV shows. Rich conversation is possible when one partner has a significant language impairment, often through multimodal communication (Goodwin, 2003). Topics that are woven into social relationships and give each person a unique personality are the first ones lost with challenges to spontaneous language and the subsequent verbal isolation and reduced sense of self-identity (Westius et al., 2010).

Much of the research available on vocabulary for adults who require AAC addresses individuals with significant physical impairments as a result of degenerative diseases, such as amyotrophic lateral sclerosis (Richter, Ball, Beukelman, Lasker, & Ullman, 2003), and adults with developmental disabilities, such as cerebral palsy (Dark & Balandin, 2007). This research note contributes a unique perspective to adult AAC research because the participants have fewer physical dependencies that require vocabulary related to basic needs. These findings have clear implications for clinical treatment and design of low- and high-tech conversational supports. Adults with significant cognitive-linguistic disorders indicate that authentic communication and immediate participation in desired life activities are their expected outcomes (King, 2014). They express isolation but desire to be engaged (Dalemans, de Witte, Wade, & van den Heuvel, 2010). Dark and Balandin (2007) emphasized that people who use AAC have the same need to share stories, anecdotes, and needs. One communication goal for a person using AAC is to participate in the sharing

of stories for experiences, whether they are sailing adventures or Internet café interactions (Astell et al., 2010).

Conclusion

The purpose of this analysis was to document common themes for low-tech AAC supports chosen by men and women with degenerative cognitive-linguistic disorders secondary to the neurodegenerative diseases of probable AD and PPA. A list of nine common themes emerged that address life experiences and personal narratives rather than basic needs and medical topics. Detailed information regarding individual themes is provided by age and gender cohorts.

When designing supported communication systems for people with degenerative cognitive-linguistic disorders, speech-language pathologists should use topics of high personal significance. We suggest starting with the topics and themes (see Table 1) that represent the choices of more than 100 people in supported conversations. It is imperative that clinicians spend ample time during the initial interview and evaluation to identify activities, environments, and participation opportunities so they can encourage topic choices for supported communication materials that are relevant, motivating, and personally meaningful.

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References

- Aphasia Institute.** (n.d.). *The works* [nine booklets, pictographic communication resources binder, DVD]. Retrieved from <http://www.aphasia.ca/shop/the-works-9-booklets-pcr-dvd>
- Astell, A. J., Ellis, M. P., Bernardi, L., Alm, N., Dye, R., Gowans, G., & Campbell, J.** (2010). Using a touch screen computer to support relationships between people with dementia and caregivers. *Interacting With Computers*, 22, 267–275.
- Balandin, S., & Iacono, T.** (1998). A few well-chosen words. *Augmentative and Alternative Communication*, 14, 147–160.
- Balandin, S., & Iacono, T.** (1999). Crews, wusses, and whoppas: Core and fringe vocabularies of Australian meal-break conversations in the workplace. *Augmentative and Alternative Communication*, 15, 95–109.
- Balandin, S., & Morgan, J.** (2001). Preparing for the future: Aging and augmentative and alternative communication. *Augmentative and Alternative Communication*, 17, 99–108.
- Beukelman, D. R., Garrett, K. L., & Yorkston, K. M.** (2007). *Augmentative communication strategies: For adults with acute or chronic medical conditions*. Baltimore, MD: Brookes.
- Beukelman, D., & Mirenda, P.** (2013). *Augmentative and alternative communication: Supporting children and adults with complex communication needs* (4th ed.). Baltimore, MD: Brookes.
- Boden, D., & Del Vento Bielby, D.** (1983). The past as a resource: A conversational analysis of elderly talk. *Human Development*, 26, 308–319.
- Bourgeois, M., Dijkstra, K., Burgio, L., & Allen-Burge, R.** (2001). Memory aids as an AAC strategy for nursing home residents with dementia. *Augmentative and Alternative Communication*, 17, 196–210.
- Bourgeois, M., Dijkstra, K., & Hickey, E.** (2005). Impact of communication interaction on measuring quality of life in dementia. *Journal of Medical Speech-Language Pathology*, 13, 37–50.
- Bourgeois, M. S., Fried-Oken, M., & Rowland, C.** (2010, March 16). AAC strategies and tools for persons with dementia. *The ASHA Leader*, 8–11.
- Bourgeois, M. S., & Hickey, E. M.** (2007). Dementia. In D. R. Beukelman, K. L. Garrett, & K. M. Yorkston (Eds.), *Augmentative communication strategies for adults with acute or chronic medical conditions* (pp. 243–285). Baltimore, MD: Brookes.
- Coates, J.** (2014). *Women, men and language: A sociolinguistic account for differences in language* (3rd ed.). Hoboken, NJ: Taylor & Francis.
- Dalemans, R., de Witte, L., Wade, D., & van den Heuvel, W.** (2010). Social participation through the eyes of people with aphasia. *International Journal of Language and Communication Disorders*, 45, 537–550.
- Dark, L., & Balandin, S.** (2007). Prediction and selection of vocabulary for two leisure activities. *Augmentative and Alternative Communication*, 23, 288–299.
- Davidson, B., Howe, T., Worrall, L., Hickson, L., & Togher, L.** (2008). Social participation for older people with aphasia: The impact of communication disability on friendships. *Topics in Stroke Rehabilitation*, 15, 325–340.
- Davidson, B., Worrall, L., & Hickson, L.** (2003). Identifying the communication activities of older people with aphasia: Evidence from naturalistic observation. *Aphasiology*, 17, 243–264.
- Fried-Oken, M., Fox, L., Rau, M. T., Tullman, J., & Lou, J. S.** (2006). Purposes of AAC device use for persons with ALS as reported by caregivers. *Augmentative and Alternative Communication*, 22, 209–221.
- Fried-Oken, M., Rowland, C., Daniels, D., Dixon, M., Fuller, B., Mills, C., ... Oken, B.** (2012). AAC to support conversation in persons with moderate Alzheimer's disease. *Augmentative and Alternative Communication*, 28, 219–231.
- Fried-Oken, M., Rowland, C., & Gibbons, C.** (2010). Providing augmentative and alternative communication treatment to persons with progressive nonfluent aphasia. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders*, 20, 21–25.
- Goodwin, C.** (2003). Conversational frameworks for the accomplishment of meaning in aphasia. In C. Goodwin (Ed.), *Conversation and brain damage* (pp. 90–116). New York, NY: Oxford University Press.
- Gorno-Tempini, M. L., Hillis, A. E., Weintraub, S., Kertesz, A., Mendez, M., Cappa, S. F., ... Grossman, M.** (2011). Classification of primary progressive aphasia and its variants. *Neurology*, 76, 1006–1014. doi:10.1212/WNL.0b013e31821103e6
- Harris, J. L., & Plan, A. F. R.** (2012). *SIGnatures: Speaking up about memories*. Retrieved from <http://www.asha.org/Publications/leader/2012/121030/SIGnatures-Speaking-Up-About-Memories.htm>

- Hilari, K., & Northcott, S.** (2006). Social support in people with chronic aphasia. *Aphasiology*, 20, 17–36.
- Holland, A. L., Halper, A. S., & Cherney, L. R.** (2010). Tell me your story: Analysis of script topics selected by persons with aphasia. *American Journal of Speech-Language Pathology*, 19, 198–203.
- Horton, S.** (2007). Topic generation in aphasia language therapy sessions: Issues of identity. *Aphasiology*, 21, 283–298.
- Jane Farrall Consulting.** (n.d.) *AAC apps list*. Retrieved from <http://www.janefarrall.com/aacapps-lists/>
- Johnson, J. M., Inglebret, E., Jones, C., & Ray, J.** (2006). Perspectives of speech language pathologists regarding success versus abandonment of AAC. *Augmentative and Alternative Communication*, 22, 85–99.
- Kagan, A., Black, S., Duchan, J., Simmons-Mackie, N., & Square, P.** (2001). Training volunteers as conversation partners using “supported conversation for adults with aphasia” (SCA): A controlled trial. *Journal of Speech, Language, and Hearing Research*, 44, 624–638.
- Kempler, D.** (1995). Language changes in dementia of the Alzheimer's type. In R. Lubinski (Ed.), *Dementia and communication* (pp. 98–114). Philadelphia, PA: Decker.
- King, J.** (2014). Communication supports. In N. Simmons-Mackie, J. M. King, & D. R. Beukelman (Eds.), *Supporting communication for adults with acute and chronic aphasia* (pp. 51–72). Baltimore, MD: Brookes.
- King, J., Spoeneman, T., Stuart, S., & Beukelman, D. R.** (1995, December). Small talk in adult conversations: Implications for AAC vocabulary selection. *Augmentative and Alternative Communication*, 11, 260–264. doi:<http://dx.doi.org/10.1080/07434619512331277399>
- Light, J.** (1988). Interaction involving individuals using augmentative and alternative communication systems: State of the art and future directions. *Augmentative and Alternative Communication*, 4, 66–82.
- LPA Project Group.** (2014). *Life participation approach to aphasia: A statement of values for the future*. Retrieved from <http://www.asha.org/public/speech/disorders/LPA>
- Luborsky, M.** (1994). The identification and analysis of themes and patterns. In J. Gubrium & A. J. Dalton (Eds.), *Qualitative methods in aging research* (pp. 189–210). Thousand Oaks, CA: Sage.
- Luborsky, M. R., & Rubinstein, R. L.** (1995). Sampling in qualitative research: Rationale, issues, and methods. *Research on Aging*, 17, 89–113.
- McKhann, G., Drachman, D., Folstein, M., Katzman, R., Price, D., & Stadlan, E. M.** (1984). Clinical diagnosis of Alzheimer's disease: Report of the NINCDS-ADRDA work group under the auspices of Department of Health and Human Services Task Force on Alzheimer's Disease. *Neurology*, 34, 939–944.
- Mesulam, M. M.** (2003). Primary progressive aphasia—A language-based dementia. *New England Journal of Medicine*, 349, 1535–1542.
- Mesulam, M. M.** (2013). Primary progressive aphasia and the language network: The 2013 H. Houston Merritt Lecture. *Neurology*, 81, 456–462. doi:[10.1212/WNL.0b013e31829d87df](http://dx.doi.org/10.1212/WNL.0b013e31829d87df)
- Mesulam, M., Wicklund, A., Johnson, N., Rogalski, E., Leger, G. C., Rademaker, A., ... Bigio, E. H.** (2008). Alzheimer and frontotemporal pathology in subsets of primary progressive aphasia. *Annals of Neurology*, 63, 709–719.
- Morhardt, D., & Spira, M.** (2013). From person-centered care to relational centered care. *Generations*, 37, 37–44.
- Morrow, D. R., Mirenda, P., Beukelman, D. R., & Yorkston, K. M.** (1993). Vocabulary selection for augmentative communication systems: A comparison of three techniques. *American Journal of Speech-Language Pathology*, 2, 19–30.
- Nicholas, M., Obler, L., Albert, M., & Helms-Estabrooks, N.** (1985). Empty speech in Alzheimer's disease and fluent aphasia. *Journal of Speech and Hearing Research*, 28, 405–410.
- Potkins, D., Myint, P., Bannister, C., Tadros, G., Chithramohan, R., Swann, A., ... Margallo-Lana, M.** (2003). Language impairment in dementia: Impact on symptoms and care needs in residential homes. *International Journal of Geriatric Psychiatry*, 18, 1002–1006.
- Ray, J.** (2014, August 27). Real-life challenges in using augmentative and alternative communication by persons with amyotrophic lateral sclerosis. *Communication Disorders Quarterly*. Advance online publication. doi:[10.1177/1525740114545359](https://doi.org/10.1177/1525740114545359)
- Richter, M., Ball, L., Beukelman, D., Lasker, J., & Ullman, C.** (2003). Attitudes toward communication modes and message formulation techniques used for storytelling by people with amyotrophic lateral sclerosis. *Augmentative and Alternative Communication*, 29, 107–116.
- Ripich, D., & Terrell, B.** (1998). Cohesion and coherence in Alzheimer's disease. *Journal of Speech, Language, and Hearing Research*, 41, 8–14.
- Rogers, M., King, J. M., & Alarcon, N.** (2000). Proactive management of primary progressive aphasia. In D. Beukelman, K. Yorkston, & J. Reichle (Eds.), *Augmentative and alternative communication for adults with acquired neurological disorders* (pp. 305–337). Baltimore, MD: Brookes.
- Sapolsky, D., Domoto-Reilly, K., Negreira, A., Brickhouse, M., McGinnis, S., & Dickerson, B.** (2011). Monitoring progression of primary progressive aphasia: Current approaches and future directions. *Neurodegenerative Disease Management*, 1, 43–55.
- Schneider, K.** (1988). *Small talk: Analysing phatic discourse* (Unpublished doctoral dissertation). Philipps-Universität, Marburg, West Germany.
- Simmons-Mackie, N.** (2000). Social approaches to the management of aphasia. In L. Worrall & C. Frattali (Eds.), *Neurogenic communication disorders: A functional approach* (pp. 162–188). New York, NY: Thieme.
- Stuart, S., Beukelman, D. R., & King, J. M.** (1997). Vocabulary use during extended conversations by two cohorts of older adults. *Augmentative and Alternative Communication*, 13, 40–47.
- Stuart, S., Vanderhoof, D., & Beukelman, D. R.** (1993). Topic and vocabulary use patterns of elderly women. *Augmentative and Alternative Communication*, 9, 95–110.
- Stuart, S., Vanderhoof-Bilyeu, D., & Beukelman, D. R.** (1994). Differences in topic reference of elderly men and women. *Journal of Medical Speech-Language Pathology*, 2, 89–104.
- Svoboda, E.** (2001). *Autobiographical interview: Age-related differences in episodic retrieval* (Unpublished master's thesis). University of Toronto, Ontario, Canada.
- Westius, A., Kallenberg, K., & Norberg, A.** (2010). Views of life and sense of identity in people with Alzheimer's disease. *Ageing and Society*, 30, 1257–1278.

Appendix

Suggested Conversational Topics

1. Public events _____
2. Media/film news (historical news events) _____
3. Local life (museums, art galleries, etc.) _____
4. Travel _____
5. Holidays _____
6. Occupations _____
7. Fashions _____
8. Hobbies (collector) _____
9. Recreation (games) _____
10. Sports _____
11. House & home (projects, decorating, gardening) _____
12. Entertainment (movies, plays, symphonies) _____
13. Music _____
14. Pets/animals _____
15. Nationality _____
16. Heritage _____
17. Traditions & celebrations _____
18. Books _____
19. Cultural events _____
20. Childhood games _____
21. Spirituality/religion (study, church) _____
22. Passions _____
23. Family _____
24. Shopping _____
25. Social events (reunions, visiting) _____
26. Education _____
27. Health _____
28. History _____
29. Investments _____
30. Politics _____
31. Eating/food _____
32. Exercise/fitness _____
33. Volunteer work _____
34. Getting around town _____
35. Other _____

Adapted with permission from Svoboda, E. (2001). *Autobiographical interview: Age-related differences in episodic retrieval* (Unpublished master's thesis). University of Toronto, Ontario, Canada.
