

Communication and Aging

**Creative Approaches to
Improving the Quality of Life**



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CHAPTER 8

Social Language Enhancement in Dementia and Aphasia

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Community reintegration is the ultimate goal of all rehabilitation and successful adjustment to life at different junctures takes courage and knowledge. Some strategies in this chapter will describe current state of the art approaches to fulfilling a productive social role under many circumstances. The access to participation in life is a right of all individuals. This chapter offers a unique window into life-enhancing communication-based strategies, research-based and meaningful in many settings, that support personal identity and interaction.

—Linda S. Carozza

INTRODUCTION

This chapter provides a unique perspective on some of the causes of communication failure in the context of aging, coupled with strategies and methods with which to handle the stages of

aftercare. Aftercare refers to the stage in recovery and service delivery when no further direct services are provided, yet the client continues to make small gradual and meaningful gains. With the medical economy shrinking worldwide, and the increase of a “graying population,” there will be fewer resources for more people, and many people are striving to live longer with the best possible quality of life. This applies to the healthy elderly as well as those with impairments who seek to participate in society to the best of their functional capacities. “Wellness” is for everyone, and this chapter will describe paths to community participation and social interaction for impaired individuals. Using communication strategies in an interpersonal context is key to living a more satisfactory and fulfilling life.

This chapter also extends the discussion of the pragmatic uses of language and speech communication, as well as the use of techniques such as those adapted from the study of conversational analysis (Carozza, 2012), among others. Within this work, a single subject was examined for the benefit obtained via different types of questions (open-ended versus closed). The purpose of the examination was to clarify caregiver communications with individuals with dementia. Statistical results revealed the patient benefited from closed question types with defined response parameters much more so than when asked open-ended questions. This corresponded with expectations of changes in language performance associated with dementia. Therefore, it is recommended as a strategy for dementia patients and should be studied further with larger patient groups and with different levels of dementia types. This is a demonstration of one of the many analyses focusing on the pragmatic uses of language. Practical approaches are important in a book of this nature because the focus is not on the traditional medical model therapy per se, but on real world applications. In this sense, we must take into account various methods of communication, not just verbal, including paralinguistic and nonverbal communication. For example, a patient may not be capable of verbal speech, but can still communicate using body language and facial cueing, both of which are part of the totality of human communication. The social use of language arises from a complexity of brain mechanisms and therefore can break down due

to a variety of reasons. This may include injury to the parts of the brain that contribute to visual and spatial processing, among others.

INTRODUCTION TO COMMUNICATIVE BREAKDOWNS AND NEUROGENIC CONSIDERATIONS

The changes in function that accompany normal aging versus disordered language must be considered. Changes in adult language use, structure, and content over time have been studied extensively by language researchers, and are covered in detail in the cognitive chapters of this book. These are especially important areas of research in that normal functioning depends on a brain-based activity and a host of cues in everyday environments that go beyond mere words and allow us to perceive incoming messages of all kinds, verbal and nonverbal. Whereas the focus of this chapter will be on living successfully with neurogenic communication disorders such as aphasia and dementia, the overall challenge of communication in a fast-paced society is an experience with which all communicators can identify.

One aspect of this is the change in response times that may take place during the normal life span. Since language reception and expression are, in effect, the detection of a rapid and fixed code, communication can be seen as the ability to quickly detect the features of a communication instance such as tone of voice, eye gaze patterns, and other nonverbal accompaniments to actual words and sentences. One major contribution to the lack of an efficient information processing system may be the overall changes in response time and related accuracy that is generally experienced as a person ages. Therefore, a decline in processing speed or “cognitive slowing,” is one variable that may account for the differences in response times of older adults in both online experimental language processing tasks and normal day-to-day interpersonal communication. A further explanation of the decline in response times arises out of an understanding of how language is perceived and processed from a neuroscientific point of view, or some of the so-called cognitive underpinnings

that support language and contribute to a psycholinguistic explanation of how language may work.

The notion of an “inhibition” factor that allows us to block out or ignore distraction is a component of many theories of language activation and use (Carozza, 1995). It can be hypothesized that an older adult may have difficulty with competing stimuli and therefore be unable to ignore distractions. Nonetheless, in this vast area of semantic network studies, there have been a significant number of discrepant findings on how inhibition may account for language function and decline in older adults and impaired populations. One explanation for discrepant theories lies in the highly complex methodological components of assessing semantic theory in the normal aged mechanism, which makes it extremely challenging to determine if scientific findings in processing studies are due to one sole mechanism or a contribution of many factors. The main example of this complex research area is the semantic priming literature, which tries to clarify whether subjects’ failure to correctly identify properties of word stimuli stems primarily from the erosion of language centers per se, or arises from a failure in the retrieval mechanisms in the brain that allow for speedy access to and interaction between areas of the brain during normal ongoing language production. The fact that this interoperational process takes place is undeniable can be seen simply by observing the speed and efficiency of everyday communication marked by the rapid production of generative and novel language generation in normal speakers.

In addition, working memory changes over time. According to Kemper and Anagnopoulos (1989), limitations in memory do have significant effects on language processing and understanding in older adults. One difficulty with clarifying this theory, however, is that natural language represents a kind of “moving target.” It is constantly changing and even a simple back-and-forth conversation, with all of the various linguistic and paralinguistic cues, and information being exchanged at rapid rates, can make it difficult to quantify/measure due to the fact that it is not controlled. Therefore, studies have moved to looking at related communication targets such as eye tracking and other measures as factors that may contribute to differences in processing strategies, and for which other experimental designs may not have fully accounted.

An additional familiar construct that seeks to describe characteristics in the language of older adults has to do with the “tip-of-the-tongue” phenomenon. Although this is far more common in older speakers and is mimicked in certain pathological communication disorders, there is no clear evidence that transmission of a progressive deficit occurs in healthy aging. Proof of this is the fact that nonspecific tip-of-the-tongue phenomena does not progress in otherwise healthy individuals, as it would in certain neurologic conditions such as dementia; nor does word-finding status in evolving conditions such as stroke-related aphasia have the same overt characteristics as the more nonspecific naming errors seen in healthy elderly. There is reason to conclude that neurologically healthy older speakers maintain syntax throughout the lifespan, and retain and may even expand semantic base and vocabulary well into middle age. Therefore, it is reasonable to expect healthy elderly speakers to perform daily life communication tasks into their later years, unaffected by significant change beyond mild cognitive slowing and related decline.

THE NEED FOR LONG-TERM STRATEGIES FOR CHRONIC COMMUNICATION DISABILITIES

The two main disorders that will be discussed in this chapter are aphasia and dementia in relation to long-term strategies for individuals in chronic stages of disease. This is a critical area of need for patients who must continue to live with language restriction after stroke and in cases of dementia, who will continue to suffer language decline. The goal of this chapter is to provide an overview of the evidence basis for some of the language methodologies used to support these two disparate conditions, in addition to emphasizing the component of social models and language support and finally some future directions given present research. Social communication skills will assist patients with chronic aphasia to overcome some of the daily hurdles of high-paced community participation. In addition when considering patients with language loss due to dementia, knowledge of strategies by which to sharpen the communication between patients and their caregivers may contribute to increased participation and well-being.

Afterword

Linda S. Carozza

Communication and Aging: Creative Approaches to Improving Quality of Life is an outgrowth of interdisciplinary collaboration between and among professionals in the medical rehabilitation community, including neuroscience specialists, speech-language pathologists, audiologists, cognitive scientists, social workers, psychologists, as well as creative arts interventionists. Concerns for the care of the aging population is high on the worldwide agenda of health care priorities: increasing needs for models of effective and efficacious community programs, in-home, and nursing home placements.

To provide a context and background for this vast array of information, the book offers descriptions of theories of aging and normal changes that take place through the lifespan, with emphasis on healthy aging followed by discussions of medical conditions affecting independence, well-being, and quality of life. These topics include cognition, communication, sensory processing, and physical and biological changes in human voice and swallowing. It is also during the later life cycle, that the onset of comorbid neurogenic communication disorders may occur. These wide-ranging conditions, from stroke-related aphasia to Parkinson's disease and dementia are at the forefront of many research, clinical, and educational initiatives. In the past, approaches to individual and group interventions have relied heavily on medical models and less on adjustment and "living successfully" with aging and health-related conditions. It is our