Referential Ambiguity in the Narrative Productions of African American Adults
Proposal for CAC 2014

Introduction

Reference is "the process of using a linguistic expression to pick out for one's addressee an individual entity … or particular set of entities" (Griffiths, 1979, p. 106). A crucial aspect of narration is the process of referring. A speaker has to select appropriate terms to refer to people, places, things, events, and ideas and make statements about them. These decisions are based on semantic, syntactic, and pragmatic concerns, as well as cognitive constraints and the ability to retrieve appropriate referential designations for entities (Givón, 1983).

Narrative production involves thinking aloud while telling a story. The ideas that are expressed during production include much of the content that enters the speakers' consciousness at each segment of the narrative (Chafe, 1980). Efficient narrative production depends on the speaker's ability to indicate who or what he/she is talking about by identifying a particular target or entity in the world, which the speaker wants the audience to pick out (Downing, 1980). The speaker must plan the narrative as a whole, effortly search and retrieve information from long-term memory, organize this information in working memory, and arrange the output, while vigilantly inhibiting irrelevant information or information that is no longer important (Chafe, 1980; van Dijk, 1997).

A major age-related finding among researchers is the likelihood of ambiguities in the narrative productions of older adults (Burke, MacKay, Worthley, & Wade, 1991; Cohen, 1979; North, Ulatowska, Macaluso-Haynes & Bell, 1986; Ulatowska, Hayashi, Cannito & Fleming, 1986). Ideally, all instances of anaphora should have their antecedents established in the prior discourse segment. Morrow, Greenspan, and Bower (1987) noted that in order to track a referent, the central story character should be prominent in working memory, and any ambiguities should be interpreted in terms of that central character as long as there is no shift in topic. However, as distance between the introduction of a story character and its subsequent referent increases, the speaker may begin to lose track of the story character (Clancy, 1980). In addition, ambiguities may occur when the speaker has to specify a referent from several competing entities. The choice of a referring expression depends, not only, on how salient the referent is in the mind of the speaker, but also on the context of the narrative (Ariel, 1997).

The management of referencing can vary by culture, language, dialect, style, context, and educational attainment. How characters are introduced and tracked in narratives depends on the storyteller and the linguistic expressions in which he or she selects to accomplish this task. African Americans, for example, employ certain dialectal differences in linguistic patterns and surface structure markings of referential forms in their narrative productions. Among these is the overuse of pronominal apposition (*Joey, he drove my car*), (Rickford, 1992); additions (*We laughed and we sang*) (Rickford, 1992), and consecutivization (*I come in last night, Ø found my money gone. Ø wonder what's been goin' on*) (Welmers, 1973). Older African Americans may be more inclined than younger adults to use the vernacular form of English and a more informal style of narration (Harris, 1999; Stewart, 1970).

Although relatively little research has been conducted on the language concerns of this population, there is no reason to believe that age-related referential deficits are different for African Americans than for other populations. The perceived differences are filtered through cultural variables (e.g., experiential, attitudinal, or behavioral) and dialect. The need to explore the language abilities of normally aging African Americans seems paramount in order to identify

ethnic features in communicative style, which can be used as a normative gauge against which to distinguish pathological language. The aim of this investigation was to examine the use of referential expressions and the production of ambiguities on the adequacy of reference management in two contrasting narrative types.

Methods

Participants

Forty community-dwelling African American females from the Washington D.C. Metropolitan area participated in the study. Participants were divided into two groups consisting of 20 younger ($M = 50$ years) and 20 older ($M = 71$ years) cohorts. All participants were native English speakers who self-reported an absence of neurologic impairment. Table 1 contains demographic information. Age groups did not differ on cognitive ability metrics of working and short-term memory, or immediate and delayed story recall. Significant differences were observed in measurements of semantic retrieval, in which older adults demonstrated a general impairment of lexical retrieval and a slowing in retrieving appropriate lexical designations from long-term semantic memory.

Procedures

Tasks designed to elicit referential expressions consisted of a reproduction of a complex story titled, *After Twenty Years* (O. Henry, 1913) and a spontaneously generated account of a personal experience. After the narrative samples were collected, they were transcribed and coded for surface structure markings of referents. To determine whether a disruption in reference management existed in narrative production and to determine how this disruption was manifested, an examination of referential ambiguity for each third-person nominal and pronominal reference was conducted based on a binary scale (0 = referent is clearly specified and readily recoverable from the text; 1 = referent cannot be easily recovered from the text). An analyses of covariance with repeated measures (ANCOVAs) was used to examine the main effects and interactions of age and narrative condition.

Results and Discussion

The results of the analysis showed a main effect of age, $F (1, 36) = 4.42, p = .04, \eta_p^2 = .11$, indicating that older adults produced significantly more ambiguities than younger adults regardless of narrative condition. The analysis also revealed a main effect of narrative type, $F (1, 36) = 9.742, p = .004, \eta_p^2 = .213$, in which the story-retelling task elicited significantly more ambiguities than personal narratives, suggesting that both groups were equally vulnerable to task complexity. Participants who were unable to recall character names defaulted to a pronominal reference or a general nominal expression. Since a main effect of age was uncovered, follow-up analyses were conducted to further explore the nature of the ambiguities. A semantic feature analysis in which each noun referent was assigned to one of four levels of semantic depth was conducted using the taxonomic hierarchies for nouns provided by Ulatowska et al. (1986). Specifically, Level 1 were general designations (e.g., *individual*), Level 2 were common nouns (e.g., *man*), Level 3 expressed role/relation designations (e.g., *friend*), and Level 4 was the most specific designation (e.g., *Bob*). The frequency of nouns for each level was subjected to Mann-Whitney U tests. Results are displayed in Table 2. The U test indicated that older adults produced significantly more Level 3 designations (e.g., *friend, mother*) that could refer to more than one entity, whereas younger adults produced significantly more Level 4 designations (e.g.,

Bob), which reduced the probability of ambiguous productions. In the case of role/relation designations, it was often unclear as to which antecedent the referring expression should be attached and were therefore judged ambiguous. Since role/relation designations served as antecedents, there was a carry-over effect for pronoun anaphors occurring immediately following these designations. These pronouns were also judged ambiguous. Reference disruption was manifested by the production of ambiguities, the overuse of role/relation designations, and lexical retrieval failures during ongoing narrative production. Ambiguities were exhibited prominently as task complexity increased.

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Table 1

Participant Demographic and Cognitive Ability Measures.

Variables	Younger		Older		
	M	*SD*	*M*	*SD*	*P*
Education (in years)	15.15	2.37	13.45	1.96	.02
Income [a]	5.25	1.74	3.45	1.76	.00
Health Rating [b]	2.05	.51	2.00	.65	.79
AAE summary score [c]	2.00	.04	7.00	.10	.02

[a]Scale is 1 (under $10,000) to 7 ($50,000 and over). [b]Scale is 1 (excellent) to 5 (very poor).

[c]High scores = high levels of AAE use.

Table 2

Means and Standard Deviations for Levels of Semantic Depth.

Variables	Older adults		Younger adults			
	M	SD	M	SD	*W*	*P*
Level 1	4.47	5.02	4.07	3.67	397.00	.73
Level 2	7.55	4.41	8.28	4.77	395.50	.70
Level 3	24.29	9.98	18.18	6.66	329.00	.03*
Level 4	5.96	6.78	11.88	7.15	304.00	.00*