Aphasic Confrontation Naming Elaboration

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INTRODUCTION

Confrontation naming efforts of aphasic persons have been analyzed from several perspectives. These include response time measures (Marshall et al., 1984, 1982; Mills et al., 1979; Newcomb et al., 1965), word retrieval behaviors (Marshall, 1976, 1975; Berman and Peele, 1967), and self-correction strategies (Marshall and Tompkins, 1982, 1981; Marshall et al., 1980). In scrutinizing thousands of aphasic naming efforts over a seven-year span, we have identified a type of naming response that has not been described in the literature. This involves the correct labeling of the target stimulus followed by semantic elaboration. For example, the patient may name the item "leaf" and add "maple or oak," "falling down" or "I sure hate to rake them." This behavior differs from what Goodglass and Kaplan (1972) and others (Kertesz, 1977) term augmentation and what Farmer (1977) labeled the "right-to-wrong" response. For the purposes of this presentation we call this response form Aphasic Confrontation Naming Elaboration or ACNE.

The intent of this study was to examine the occurrence of ACNE in a heterogenous sample of aphasic subjects. To make sure we were not making what Shakespeare termed "Much Ado About Nothing" we examined 40 confrontation naming efforts from each of 30 normal subjects. We found little evidence of elaboration in these subjects' responses. Armed with this knowledge we asked the following questions with respect to an aphasic sample.

1. How frequently does ACNE occur in the correct naming responses of aphasic subjects?
2. What biographic and behavioral characteristics are correlated with the occurrence of ACNE for aphasic subjects?

METHOD

Subjects. Forty-six aphasic individuals, all of whom suffered left-hemisphere lesions with resulting aphasia, participated in the study. Subjects demonstrated at least 50% naming success on subtest IV of the Porch Index of Communicative Ability (PICA) (Porch, 1967). The subject sample varied widely in terms of other features. Table 1 describes the sample in terms of age, months post onset, severity on the PICA %ile, fluency (syllables per minute on the narrative description of the "Cookie Theft" picture from the Boston Diagnostic Aphasia Examination (BDAE) (Goodglass and Kaplan, 1972), auditory comprehension (percent correct on the auditory subtests of the BDAE), education (in years), and occupation (categories provided by the Bureau of Census).

Naming Task. Each subject participated in a 40-item naming task. Stimuli were black and white line drawings of common objects, presented on slides. Subjects were given the following instructions. "You will see some pictures on the screen for a certain length of time. Try to name each one. When the slide goes off, get ready for another picture and try to name it. Are you ready?"

TABLE 1. DESCRIPTION OF SUBJECTS

SUBJECTS	AGE	MONTHS POST ONSET	SEVERITY (PICA OA %ILE)	FLUENCY (SYLLABLES PER MINUTE)	COMPREHENSION (BDAE)	EDUCATION	OCCUPATION
#1	59	46	87%	104.00		12	7
#2	48	2	79%	173.88	.924	14	4
#3	62	5	85%	114.00	.949	12	4
#4	68	52	81%	100.00		18	2
#5	71	3	60%	179.00	.866		5
#6	71	21	77%		.949	18	3
#7	62	12	94%	154.00	.983	14	3
#8	45	2	85%	147.40	.932	12	5
#9	58	121	72%	101.74		14	4
#10	62	1	63%	76.50	.915	14	6
#11	62	1	36%	109.00	.765	12	5
#12	62	9	93%	79.40	1.000	16	3
#13	61	1	95%	131.00	.882	8	5
#14	61	156	63%	56.64		12	5
#15	52	158	80%	56.70		15	4
#16	55	2	58%	149.00	.890		6
#17	70	50	76%				5
#18	62	9	45%	109.00	.777	9	2
#19	65	1	66%	134.60	.890	14	3
#20	69	1	67%	159.00	.774		5
#21	71	1	68%	145.00	.950	8	3
#22	52	3	79%		.908	8	6
#23	61	1	51%	76.50	.915	10	5
#24	42	28	86%	59.78	.723	12	5
#25	69	38	61%	96.25	.933	12	3
#26	58	4	54%	177.50	.915	12	5
#27	49	33	91%		.987	12	6
#28	42	1	51%		.958	12	5
#29	57	1	66%	57.00	.950	12	3
#30	47	46	63%	181.00	.781	16	3
#31	52	4	68%	76.00	.782	12	5
#32	60	10	51%	56.00	.836	12	5
#33	61	2	51%	154.00	.899	16	4
#34	64	3	53%	52.50	.866	14	5
#35	57	1	72%	33.30	.973	7	5
#36	66	5	51%			8	5
#37	58	1	46%	154.00	.983	12	4
#38	57	1	70%	62.00	.949	7	6
#39	50	3	43%	61.00	.823	10	7
#40	57	7	55%		.958	12	6
#41	59	18	82%	84.91	.929	15	4
#42	58	1	56%	57.00	.983	11	6
#43	53	3	72%	81.00	.933	12	3
#44	63	1	55%	53.00	.949	14	4
#45	56	10	40%	76.00	.782	8	5
#46	63	2	54%	45.00	.908	16	2

Responses were audiotaped. Each response was transcribed verbatim from the tape and scored right or wrong. The number of correct responses ranged from 16 (40%) to 40 (100%) with a mean of 29.8 (74.5%).

Coding of ACNE. Two of the investigators independently examined each correct response for the occurrence of ACNE. An occurrence of ACNE was operationally defined as the correct production of the target stimulus followed by additional information that was semantically related to the target item.

Reliability. Investigator agreement for occurrence of ACNE was 91%. As a further reliability index, 25 examples of ACNE and 25 correct responses not containing ACNE were written out verbatim on individual cards. A third judge reviewed the operational definition for ACNE and coded each response as representative or nonrepresentative of the behavior. Agreement of the third judge with each of the first judges was 100%.

RESULTS

Occurrence of ACNE. Table 2 gives the number and percentage of correct naming responses and the number and percentage of responses containing ACNE for each subject. Thirty-four of the 46 subjects produced at least one correct response that contained ACNE. Twelve subjects produced no ACNE. The highest percentage of correct responses with ACNE for any one subject was 62.5%. The mean number of correct responses with ACNE for the entire sample was 16.2%.

Biographic and Behavioral Profiles. Eight independent variables--age, months post onset, auditory comprehension, severity of aphasia, fluency, years of education, occupation, and naming success--were examined with respect to their relationship to the proportional occurrence of ACNE.

The statistical model employed was a stepwise multiple regression analysis with backward elimination. In this analysis the dependent variable was regressed on the eight independent variables. Results showed that three of the independent variables (severity, fluency, and age) were significantly correlated ($p < .05$) with the occurrence of ACNE. Increased ACNE was associated with reduced severity, greater fluency, and increased age. The magnitude of the partial correlation coefficients were .54 ($p < .001$), .38 ($p < .01$), and .35 ($p < .02$) for severity, fluency, and age respectively.

DISCUSSION

We have observed that many aphasic clients elaborate upon their naming efforts but that this tendency is not characteristic of normal individuals. We have labeled this phenomena Aphasic Confrontation Naming Elaboration or ACNE. This study showed that some aphasic subjects manifest considerable ACNE and others exhibit none. Occurrence of ACNE was significantly correlated with severity of aphasia and verbal fluency. These relationships are interesting but they tell us little about what causes some patients to elaborate after correct naming and others to remain silent. Perhaps subjects who produce ACNE may reflect an overflow in processing, reduced inhibition, or a gregarious nature coupled with better verbal skills and less severe aphasia.

The finding that age was significantly correlated with ACNE was not expected. However, Shadden (1981) and Obler (1980) may have offered some explanation. Shadden (1981) has observed that the elderly tend to verbalize excessively as a means of compensation for minor deficits and as an escape from the give-and-take requirements of conversation. Obler (1980) found that normal elderly adults tend to use many words to convey a simple idea. We had expected that the variables of occupation and education might be correlated with ACNE, but this did not occur.

Table 2. Number and percentage of subjects' naming success and Aphasic Confrontation Naming Elaboration.

SUBJECT	# Correct	%	# ACNE	%
#1	32	.800	20	.625
#2	37	.925	17	.459
#3	39	.975	15	.385
#4	34	.850	15	.441
#5	31	.775	15	.484
#6	39	.975	13	.333
#7	37	.925	12	.324
#8	36	.900	11	.306
#9	33	.825	11	.333
#10	33	.825	11	.333
#11	28	.700	10	.357
#12	39	.975	9	.231
#13	21	.525	9	.428
#14	28	.700	7	.250
#15	27	.675	7	.269
#16	34	.850	6	.176
#17	31	.775	6	.194
#18	36	.900	5	.139
#19	36	.900	5	.139
#20	33	.825	5	.151
#21	34	.850	4	.184
#22	33	.825	4	.121
#23	31	.775	4	.129
#24	25	.625	4	.160
#25	31	.775	3	.097
#26	30	.750	3	.100
#27	40	1.000	2	.055
#28	36	.900	2	.055
#29	31	.775	2	.065
#30	21	.525	2	.095
#31	28	.700	1	.035
#32	22	.550	1	.045
#33	21	.525	1	.047
#34	20	.500	1	.050
#35	36	.900	0	
#36	35	.875	0	
#37	34	.850	0	
#38	32	.800	0	
#39	31	.775	0	
#40	29	.725	0	
#41	27	.675	0	
#42	26	.650	0	
#43	25	.625	0	
#44	20	.500	0	
#45	19	.475	0	
#46	16	.400	0	

Occurrence of ACNE may be explained by a more thorough analyses of subjects' elaboration. We noted that subjects produced two types of ACNE. The first occurred when the stimulus to be named required specific background in order to be identifiable. Examples would be the targets "farmer," "rain," and "garage." On these types of stimuli subjects manifesting ACNE tended to name the target item and then delineate items in the background. Examples would be "farmer with a pitch fork," "rain, falling in a puddle," and "garage, with two cars in it." These could represent a problem in determining figure-ground relationships, but we are not sure. It is also possible that subjects grasped the concepts in the line drawings of house, breakfast, and farmer but were unable to inhibit naming the associated items found in the picture's background or perhaps they were just letting the examiner know that they could say more about the picture than its name.

A second form of ACNE exhibited by our subjects appeared to represent efforts to make a response more specific. Specific examples would be "hose--garden hose," "pie--two-layer chocolate," and "plane--jet fighter." The most noticeable attribute of these response forms was that they represented an improvement on the original response and appeared to reflect an improvement in what Linebaugh (1983) called lexical focusing. They may reflect a form of self-correction behavior or difficulty with the ordering of adjective-noun clauses.

ACNE appears to reflect one way in which aphasic and normal subjects' responses differ qualitatively but not quantitatively. Subjects' elaborations were not erroneous, but they were different from those of normal subjects. From a treatment perspective, pictures that prompt elaboration may be more potent sources of language stimulation than those that do not promote elaboration. The observation that subjects tended to elaborate more when presented items that represented a concept or those that stimulated lexical focusing is similar to a report by Faber and Aten at the 1979 Clinical Aphasiology Conference. They found that nonfluent and fluent aphasic subjects were not different in correct naming responses, but differed in the amount of topically related words generated in response to pictures of intact and broken items.

In summary, our aphasic patients sometimes do things that we do not expect them to do and say things that we do not expect them to say. Often these unusual responses on verbal tasks are hidden by a +/- scoring system. This paper has attempted to provide information on the nature of some of these responses.

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