Who's on First? A Treatment Approach for Name Recall with Aphasic Patients

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Aphasic persons commonly complain of difficulty in name recall. These problems may extend to long-term acquaintances and family members, but are more frequent with newly introduced people. Although extensive literature exists on the treatment of aphasic word-retrieval problems in general, limited information is available for improving name recall. There are case reports in the neurologic literature that address loss of mental imagery following brain injury (Farah, 1984) and agnosia for recognition of faces (Jeeves, 1984; Ferro and Santos, 1984; Gomor and Hawryluk, 1984). However, these reports deal with the underlying pathological mechanism regarding size and site of lesions with controversial and thus far inconclusive evidence (Mazzuchi and Biber, 1983). Limited information on treatment paradigms for name recall are found in the clinical psychology literature as described by Wilson (1981, 1981a, and 1982), Moffat and Coward (1983) and Wilson and Moffat (1984, 1984a). These treatments were designed for brain injured patients having a variety of significant recall problems, one of which was the ability to remember peoples' names. The authors found that a) name recall deficits were pronounced in brain injured persons, b) traditional memory training techniques were not always successful in improving name recall, and c) if their patients were successful in improving name recall in the clinic, carry-over of name recall abilities to everyday encounters with others was very limited.

This paper describes the implementation and results of a treatment program designed to improve name recall performance of three aphasic clients. The program combines procedures from a face-name association method of remembering names by McCarty (1977) and the imagistic-symbolic looping association by Mysak and Guarino (1981) to provide the patient with a strategy for facilitating name recall. Questions asked for the study were:

1) Do aphasic clients improve their name recall skills following the Memory for Names treatment program?
2) Do aphasic clients maintain newly acquired recall strategies?
3) Can aphasic adults apply name recall strategies from the Memory for Names Program to unfamiliar material?

METHOD

Three aphasic adults with diagnosed unilateral left hemisphere strokes participated in this study. According to guidelines published by Goodglass and Kaplan (1972), Subject 1 was a fluent speaker with decreased auditory comprehension and exhibited Wernicke's aphasia; Subject 2 demonstrated an anomic aphasia characterized by word-finding difficulty and intact auditory comprehension; Subject 3 was a nonfluent speaker with speech characteristics typical of Broca's aphasia. All subjects rated 3 or higher on the Aphasia Severity Rating (BDAE, 1972). All had received prior speech and language

therapy and were involved in ongoing maintenance programs at the time of the study. To ensure that photograph identification was not influenced by visual perceptual deficits, each subject was asked to match 10 identical pictures, and all did so accurately. In addition, each subject had specific difficulties remembering people's names and reported this caused frequent frustration in their otherwise functional daily communication skills. Additional information describing the subjects is provided in Table 1.

Table 1. Subject description.

Subject	Age	MPO	Type of Aphasia	Education	Severity (BDAE)	BDAE Auditory % ile	WMS Logical Memory--A&B (Average)
1	62	11	fluent	12	3	44th	4
2	74	3	anomic	12	5	90th	10
3	77	12	nonfluent	12	4	90th	5

Note. BDAE = Boston Diagnostic Aphasia Examination
WMS = Wechsler Memory Scale, Logical Memory A & B (average)

Memory for Names Program. The Memory for Names treatment program (MNP) combines both face-name association techniques (McCarty, 1977) and procedures used in facilitating word-retrieval (Mysak and Guarino, 1981). The subject is asked to attend to a distinctive feature of the pictured person as he or she is told the name along with three to four characteristics of the person by the clinician. The subject is then instructed to transform the name and imagine it interacting with the distinctive feature or one of the personal characteristics. When attempting to recall the name, subjects are encouraged to state the distinctive feature or personal characteristic, and then supply the name.

The MNP has four steps. Each step provides less visual information about the person with fewer visually distinctive features or increasing background distractions. Step 1 employs 5 colored full-body pictures. Step 2 uses 5 colored face-only photographs. Step 3 uses 5 black and white face-only photographs. Step 4 uses a single color picture containing 5 people. The same seven substeps are used in each Step of the program (see Table 2).

Procedures. Pre-treatment (baseline) measures of name recall were obtained for each subject using the same set of 10 colored photographs. The examiner presented 5 pictures singly and provided the subject a name for each. Then the subject was asked to recall the name of each picture. The remaining 5 pictures were then presented. When subjects' name recall scores for the 10 pictures were stable, treatment was initiated on Step 1.

Table 2. Memory for Names substep program outline.

1. Subject is shown 5 photographs of unknown people.

2. Subject is told the name and shown the written name for each photograph. Five repetitions of the name are given with the subject repeating the name each time.

3. The subject is instructed to select a distinctive feature of the face.

4. The subject is told 3-4 simple characteristics of the pictured person, incorporating the person's name.

5. The subject is instructed to transform the name and/or personal characteristic interacting with the feature.

6. Five more repetitions of the name are given without showing the written name.

7. After all pictures have been presented, each photograph is individually shown. The subject says what the distinctive feature is and then supplies the name.

Treatment procedures followed those described in the preceding section. Criterion performance for each Step of the MNP was 80% for three consecutive trials, the third trial occurring 2-3 days later. When criterion was reached the subject was moved to the next Step. All treatment took place on an outpatient basis.

When the subject had completed all steps of the MNP, post-treatment and carryover measures were obtained for name recall performance. Post-treatment measures involved the same 10 pictures as in the pre-treatment assessment and were obtained immediately after Step 4 of the MNP was completed and again 5-6 days later. The carryover measure involved 10 new pictures and was obtained immediately after the post-treatment measures had ended and then 2-1/2 to 3 weeks later. All procedures for the post-treatment and carryover measures were similar to those of pre-treatment and in no case was the subject instructed to use strategies employed in training.

RESULTS

Figure 1 shows the percentages of names recalled before and after treatment, for each Step of the MNP, and on the carryover measure. Pre-treatment baselines show that no subject was able to recall more than one name associated with a photograph prior to MNP initiation.

MNP Effects. Analysis of each subject's performance on the MNP shows that program Steps were completed in different amounts of time by the subjects and that progress through the MNP was related to severity of aphasia. For example, Subject 2, a relatively mildly impaired anomic client, reached criterion performance each time she went through the program Steps. Step 3

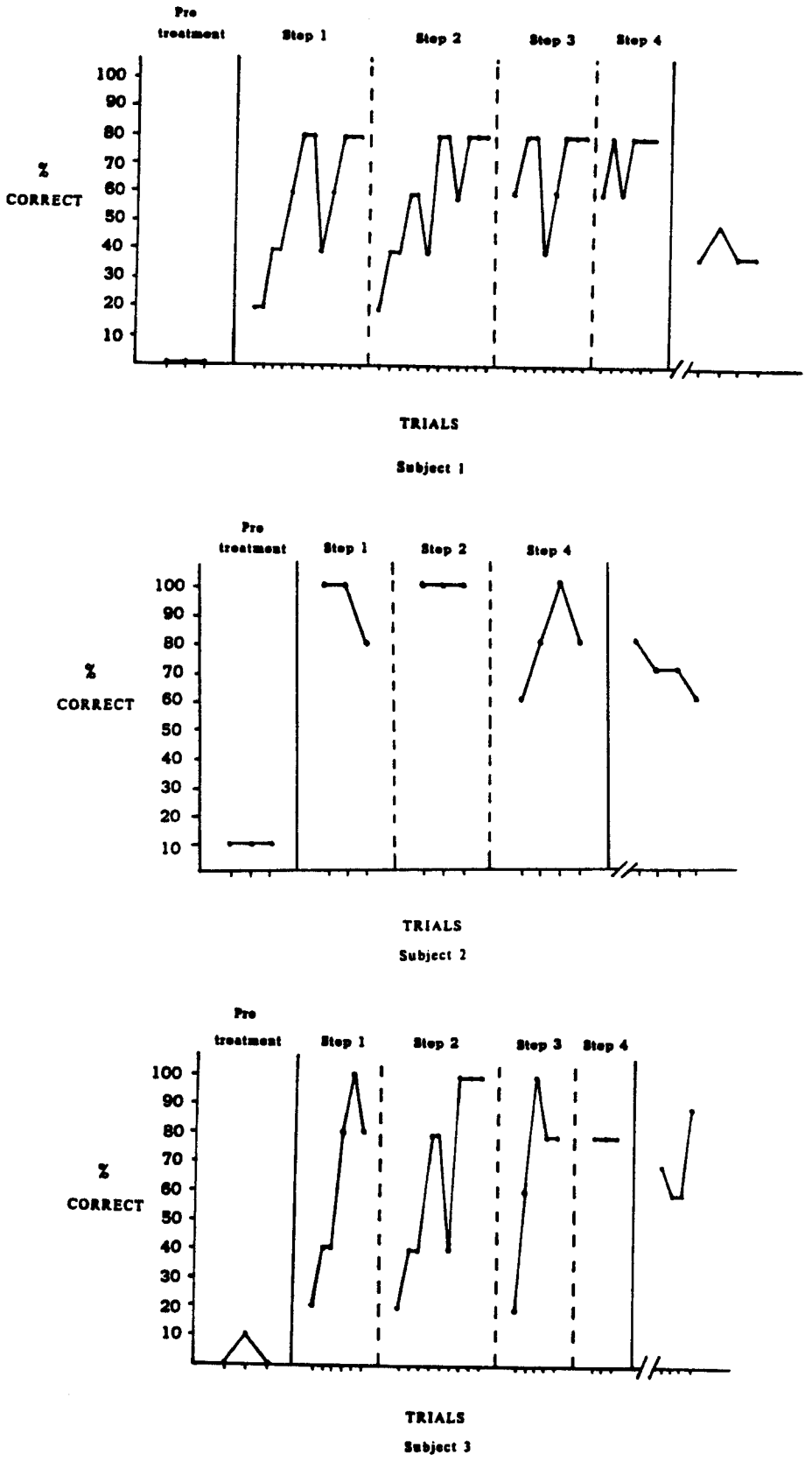

Figure 1. Percent of names recalled during Pre-treatment, Intervention, and Follow-up phases for Subject 1 (top), Subject 2 (middle) and Subject 3 (bottom).

on her program was omitted because it seemed unnecessary. Conversely, Subject 1, a more severely impaired Wernicke's patient, required more sequences of the MNP before reaching criterion, and Subject 3 fell between. All subjects reached criterion on the MNP Steps, and all reflected gains between pre- and post-treatment measures.

Maintenance. All subjects showed slight gains or negligible decrements in naming recall for the post-treatment measures 5-6 days after cessation of treatment. While post-treatment scores were not as high as those attained during treatment, they do reflect a marked change from baseline.

Carryover. Subject performance further reflects that when new stimuli were introduced (carryover), naming recall scores remained substantially higher than baseline. Moreover, naming recall scores for the carryover mesure were also maintained when the measure was repeated 2-1/2 weeks later.

DISCUSSION

The MNP was successful in facilitating name recall for all three subjects. When first tested, they were essentially unable to recall new names before treatment. Throughout the program, each subject was able to reach criterion performance on the Steps of the MNP. Post-treatment and carryover measures were substantially higher than pre-treatment (baseline) performance.

The MNP appears to be one means of teaching aphasic clients an active application of a strategy for recalling person's names. Each individual subject decided what stimulus features to code and created their own interacting images for associating face-name pairs. As Wilson and Moffat (1984, 1984a) found in their various memory training programs, memory skills depend on preferences and styles of individuals. With this in mind, the MNP was designed to incorporate an approach tailored to the subjects' needs with self-cue flexibility. The clinician's role was to assist and promote successful practice of strategy application, with the subject depending less and less on outside cueing throughout the treatment.

As demonstrated, subjects were able to apply the strategy taught and practiced in the MNP to new, unfamiliar photographs after completion of the treatment and 2-1/2 to 3 weeks later. The manner in which this was accomplished is reflected in examples of subject self-cues in name recall attempts in Table 3. This further suggests that improvement resulted from strategy application and not just repetitive drilling. Also, each subject commented that they found themselves using strategies in other situations and noted improved name recall outside the clinic setting.

Efforts are currently underway to replicate this study with additional subjects having various aphasic disorders. Inclusion of a fifth Step in the training, composed of individual people as stimuli rather than photographs, is being considered.

Further exploration is needed to determine specific mechanisms underlying name recall and other directions treatment might take with aphasic persons who have problems remembering names.

Table 3. Examples of subject self-cues for name elicitation.

Target Name	Subject Cue
Linda Pelton	"Slick and smooth, like a pelt."
Professor Harold McCoy	"Hairless bookworm"
Oliver Kurtz	"He's O.K. looking to me!"
Jessica Hill	"She's got her hair done up, like a dirt hill. Hill...."
Rita Jones	"Look at her jewels. Keep up with the Jones' "
Mrs. Leachman	"She looks like bleach-blonde hair. Leach.."
Laura Hedges	"She's the lady with the hedge hair."
Toni Chambers	"She's the woman executive. Uh, guy's name...."
Don Hilliard	"He's the pilot flying over hills."
Dr. Opsahl	"He's Norwegian, I think. Up north, no, south. Up south. Opsahl."
Timothy Netherton	"Oh, he runs the gambling joint. Naughty person. N...Netherton."

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DISCUSSION

Q: You provided the names of the people during the training of all the steps, right?
A: Yes.

Q: So how do you know if they (the subjects) were using a strategy in your final probes? I think you were trying to get at that with the untrained items, but I don't see the data there.
A: All the responses were transcribed. In pretreatment, the subjects weren't able to remember the picture names, and they let us know they couldn't remember, or else did not respond. When post-treatment answers were transcribed, self-cues were recorded, and were also seen in carryover measures. Those are the examples given in Table 4.

Q: You do not train on all ten of the names?
A: The pre- and posttreatment pictures were not trained. Training took place for the different picture sets during the treatment phases only.

Q: Where on your data do you show performance on the non-trained items?
A: Pretreatment, posttreatment and carryover measures are the results for the untrained items.

Q: So the very first phase and very last phase of your graphs represent untrained items?
A: Right.