Developing and Using Scripts in the Treatment of Aphasia, AoS, and TBI

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Developing and Using Scripts in the Treatment of Aphasia, AoS, and TBI

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Scripting Relies on Two Disparate Theoretical Underpinnings

1. The importance of scripts and stories in everyday communication

“We are the stars of our own movies” (Tom Robbins, 1980);
“You are the author of your own story” (David Krieger, 2001);

2. Previous work done on whole task training in aphasia

We Are Our Stories...

- Stories get lost with aphasia
  - Many of them carry our identity
  - Have a tie to our self-confidence and safety

- Illness narratives
  - Powerful palliative and curative effects
    - (Coles, 1985; Frank, 1989; Kleinman etc.)

- Comfort lies in their repetition
In Addition to Stories, There are Scripts

- Scripts (for this talk) are:
  - Predictable verbal responses in interactional routines
    - What you say when the person who says he is not a solicitor calls once again on the telephone
    - Giving directions to your house
  - Initiations & responses in canonical interactional routines
    - "The Meeting Adrian example"
    - Are you visiting your grandma?
    - Where do you live?
    - How old are you?
    - Do you like to come to Tucson?
    - How long are you staying?
    - Your grandma must be very proud of you.

TWO Sources Justify Scripting

The importance of stories in everyday lives and communication comes to us through the study of social communication and discourse. This provides the rationale of this participation-based content approach.

Behavioral science provides the rationale for this contextual training approach.

Scripts and stories will be examples of "whole task training." Differ in many ways from the standard ways we approach re-training in aphasia therapy, which typically is "part task."
## Training

### Part Task*
- Breaks tasks down into components that are used simultaneously (fractionation)
- Each component is trained separately and acontextually
- Emphasis is on a generic skill

*—sometimes called “skill based”

### Whole Task*
- Emphasis is on practicing the use of all required skills within a targeted context
- Deployment of skills/strategies practiced within the context simultaneously
- Presumed more effective for less complex and highly-organized tasks with more predictable sequencing of steps

*—sometimes called “context based”

### Some Examples

#### Part task:
- Word retrieval
- Comprehension of selected sentence types
- Training articulatory gestures

#### Whole task:
- Training behavioral routines and sequences
- Training context-dependent scripts and scenarios

### Different Approaches, Different Goals

#### Part Task
- By training components applicable to other skills, generalization likely to be maximized
- Training is likely to focus at impairment level, rather than activities and participation

#### Whole Task
- By training “routines,” generalization likely to be limited to similar routines
- Training is likely to focus on functional interactions, activities and participation levels (consequences)
• Both share the assumption that success requires practice, practice, practice.
• Learning is the mechanism of change

A Clinical Example...

• Hinckley, Patterson & Carr (2001)
• Study used both approaches to teach PWAs the same complex task:
  • Ordering a shirt over the phone
• PART TASK TRAINING: Taught vocabulary cross-modally, sentence structures, etc.
• WHOLE TASK TRAINING: Taught whole unit

Results....

• Both groups learned the ordering task
  • Part task learned faster
  • Whole task learned it better (maintained longer)
• Different patterns of generalization
  • Part task generalized to CADL-2, written ordering of shirt
  • Whole task generalized to BNT, ordering a pizza over the phone.
That's the background....On to the goals of this talk

1. To teach you how to develop and work with scripts on your own

2. To learn about various approaches for teaching and implementing scripts...from pencil & paper 😊 to more fun implementations 😊 from Virtual Clinicians to ipod, ipad apps

3. To provide supporting outcome data

Scripting is a Clinical Tool

- A development from my lab, students
- Starts with developing a short script in collaboration with the aphasic person
- Has been used with Broca, anomic, conduction, mild Wernicke’s & most recently with severe AOS
- A key concept is that you get better at what you practice
- Homework is a built-in, a given

This is Not Rocket Science!

- In consultation with aphasic persons and their families, clinician determines plausible, useful scripts and stories
  - Making an appointment at the beauty shop*
  - Buying a gift for a spouse*
  - Placing a bet with your bookie over the phone*
  - Telling one’s own stories
  - You at your best
- Clinician develops a script, based on aphasic person’s input—perhaps simplifying complex language
- Practice, practice, practice — clinic and home
- Work toward automatization through repetition
Personal Scripts and Stories

- Most powerful are self-chosen stories about events in one’s life:
  - Illness narratives
  - Big events (weddings, birth of children)
  - Being in war or strife
- Most useful
  - Resuming simple conversational roles
  - Telling personal stories, reminiscences, joking, giving directions, weather talk, etc

How to Create a Story/Script

THIS IS NOT TRIVIAL

- A major encourager for practice is to help aphasic person choose one for which he/she is enthusiastic about learning.
- Provide examples about the range of possible topics
- Choose one, then write story together
- Final decision (even wording) is up to him or her

Ideal Stories Are:

Fairly short---8-15 sentences for monologues, 8 or so turns for canonical interactions (might want to split longer ones into two sections.)

Embed a feature (say, a lot of verbs) that can facilitate generalization to untrained contexts

Important, fun, personally meaningful, relevant--WHATEVER CAN FACILITATE PRACTICE
Some Topics for Which We Have Developed Scripts

- e-mail scripts
- getting to know you
- picture naming scripts (PPA)
- asking about your feelings
- asking about your day
- stories about life
- talking to store clerks
- conversation starters
- giving directions to your house
- telling a bartender how to make your martini
- ordering a pizza over the phone
- ordering in a restaurant (rice pudding is an aphasia favorite!!!)
- finding out about the grandkids over the phone
- telling stories from your past
- giving a testimonial in church
- prayers
- jokes

MONOLOGUE THEMES

| Stories from life | 19
| Story of my stroke | 12
| Introducing me to others | 3
| Prestroke story | 3
| Retelling an impersonal event | 1
| Prayers, testimonials, speeches, & lectures | 6
| Outside interests | 2
| Making plans | 1

Total 28

Holland, Halper, & Cherney (2010)

Dialogue Themes

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N=72
Example (Monologue)

Sherlock Holmes and Dr. Watson were camping out. They had just crawled into their sleeping bags. Sherlock said “Look up, Watson, and tell me what you see.” Watson replied, “I see the stars of the heavens.” “Tell me more,” said Sherlock. “I see the glory of nature in the night sky,” Watson said. “Oh Watson!” Sherlock said, “Can’t you see that someone has stolen our tent?”

Questions for Meeting New People

Where did you grow up?
Where do you live?
Have you lived anywhere else?
Where did you go to high school?
Where did you go to college?
What are some good things about your job?
What are some bad things about your job?

Now you have a script (or so) that you and the client have written together and gone over in the clinic.

WHAT HAPPENS NEXT????
SEND IT HOME FOR PRACTICE !!

Practice is THE CRITICAL element in Scripting

If a script is not practiced, it WILL NOT be learned!

SCRIPT MUST BE in both written and spoken (recorded) forms.

Some Old Ways

• Reading the script/story
• Recording it, leaving space for practice
• Dynavox
• Language Master
• Plain old pencil & paper
• Talking photo albums
• PRACTICE INVOLVES SPEAKING THE SCRIPT ALOUD!

OR You Can Buy your Clinic a Virtual Clinician to Provide the Home Practice
AphasiaScripts: The Automated Version

APHASIA SCRIPTS@RIC.ORG
available only for PCs

The AphasiaScripts® Editor shows the speech language form digital aces to creating user profiles, writing scripts, recording scripts, and checking user progress.aphasia.org is the site of the AphasiaScripts® Editor and includes all the features.

The Editor is a software application that allows users to create and manage their own speech therapy programs. It includes the ability to create and edit speech therapy scripts, record and save speech samples, and monitor progress. The application includes features such as voice recording, text-to-speech, and the ability to save scripts for future use.

To use the Editor, users must first create a user profile by entering their name, age, and gender. Once a profile is created, users can begin creating speech therapy scripts. These scripts can be saved and retrieved for future use.

The Editor also includes a feature that allows users to track their progress. This feature allows users to monitor their progress over time and to compare their progress with others.

In addition to the Editor, AphasiaScripts@RIC.ORG also offers a range of other tools and resources for speech therapy, including a library of speech therapy scripts, a speech therapy glossary, and a community forum where users can share ideas and support each other.
A Modest list of very useful ones:

- Small Talk/Lingraphica
- Pictello
- iConverse
- Video Assisted Speech Technology (VAST)/Speak in Motion

Or...you can put individualized scripts on Apps for home practice via iPod Touch or iPad
A crucial aspect of practice is that it should be documented.

Make contracts:
Practice 1/2 hour 5 days a week...typical
Require documentation--

Practice Logs
Time spent daily is required BUT get fancier
if you wish:
• Judgment of success;
• Feelings of mastery;
• What went wrong/right;

*(Practice time built into AphasiaScripts)*

Next Week at the Clinic*

• Review
• Choose an element to focus on: Verbs, nouns, structure.
• Preview next week's work
• Scripts typically are mastered in 4 weeks or less

What is the evidence for the utility of scripting?

Scripts have been "mastered" by all but 4 patients evaluated, with changes in script content, words per minute, fluency. Most of this work has been single subject, multiple baseline, using 3 scripts. Some work has found generalization to grammatical morpheme use and rate of speech as well as changes in measures of confidence.

Clinical Details Varied Considerably
• Weekly sessions were face to face or videoconferenced.
• Both fluent and nonfluent persons were treated.
• Severity of speech/language disorder varied
• Using VAST technology, PWA mastered scripts to use with their iPods, while... others moved on to less visually-dependent speech.
• All presentation methods mentioned in this talk were used successfully
In Conclusion----

Scripting is a viable approach.
It is ready for a systematic review

AND

It can be fun, functional, and collaborative!

THANKS FOR LISTENING!
Here is my cat Vincent

Vincent was named after Vincent van Gogh

Can you guess why?

RIGHT!!

He is missing an ear!
My Cat Richard, The Computer Nerd

Here he is, demonstrating one of his computer skills.