

**APHASIABANK GESTURE AND DISCOURSE STUDY**  
**PROTOCOLS AND BEST PRACTICES MANUAL**

IRB #14633 - Test-retest evaluation of spoken discourse and gesture in speakers with  
aphasia

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## **Data Collection for Aphasia Group**

### **Overview**

Day 1 AM:

- Informed Consent PWA
- Redcap Surveys (Informed Consent, Intake Form, PHQ 9)
- WAB-R Q-global Remote-Adapted Stimulus Book
- WAB Record Form
- TULIA Instructions

Day 1 PM:

- Discourse Script
- AphasiaBank Picture Description Task
- Cinderella Story

Day 2 AM:

- TALSA Battery: Digit/Word Span à Word Span – Pointing or Digit Span Pointing
- PNT
- VNT
- Concrete Abstract Picture Description Task
- Address Task

Day 2 PM:

- Discourse Script

### **Data Collection Procedures for Aphasia Group**

**Testing will include 2 sessions- one session in the morning and one in the afternoon:**

Day 1 AM:

Approximately 2 hour long, will include the following tasks:

- Informed Consent and Demographic/Intake form (30 minutes)
- PHQ9 (5-10 minutes)
- Western Aphasia Battery (45 minutes)
- Limb Apraxia (10 minutes)

Day 1 PM:

- AphasiaBank Discourse battery

### Day 2 AM:

- TALSA battery (50 minutes)
- Philadelphia Naming Test (30 minutes)
- Verb Naming Test (20 minutes)
- Concrete and abstract picture description task (30 minutes)

### Day 2 PM:

- Repeat AphasiaBank Discourse battery

### **Day 1 AM Procedure:**

#### **Before Participant Arrives:**

- Begin Teams session and have all materials and instructions ready to go at least 15 minutes early.
- Confirm you have all the materials and instructions you need for each test.
- Perform Internet connection check:
  - Ethernet connection (preferred) or reliable Wi-Fi. If possible, confirm the reliability of your Internet by determining bandwidth and speed
- Screen sharing device (i.e., computer, iPad) with an adequate display resolution (roughly 9 in. of screen) is required
- Built-in or external webcam/camera device
- Functioning audio system is required (i.e., microphone, speaker)
- Headphones for investigator and participant are recommended
- Recommended that device can stand on its own (i.e., not required to be handheld)
- Make sure your own experimental environment is ideal before participant arrives:
  - Close household windows to reduce background noise
  - Notify other people that you are in a session
  - Remove pets from the room (if possible)
  - Turn phone and other devices to silent or off
  - Close door(s) to room (if possible)
  - Close all unnecessary programs and windows on computer

#### **Equipment Check**

**“Hello! Before we start today, let’s make sure that our equipment and surroundings are in good shape.”**

**“Can you hear me?”**

If no reply, make sure your microphone and their microphone is not muted.

If you are not muted, send first statement in chat. Wait for 30 seconds and try again.

If yes, say: “Okay, great. Now let’s test your microphone. Say a few sentences.”

If you can’t hear them clearly, ask them to speak more directly into the microphone and try again.

Once the sound check is complete, say: **“Now that we can both hear each other clearly, let’s quickly check video feeds. Can you see me?”**

If not, trouble shoot the problem.

If yes, and you cannot see the participant, make sure they have their video feed unmuted.

If yes, and you can see the participant, move on.

**“Last thing to check is to make sure we are both in quiet environments without distractions. Let’s go through the checklist together.”**

**Go through the entire Environment Check checklist located below:**

Environment and experiment setup

1. Image (i.e., camera placement) of participant and investigator should include head and shoulders in the center of the screen
2. If necessary, the camera angle should be adjusted to include participant gesticulation
3. Lighting should be adequate for clear visibility (i.e., facial features, object manipulation)
4. Make sure camera is able to see full upper body including any space where gesturing may occur.

To prevent potential distractions from the experimental environment:

1. Close household windows to reduce background noise
2. Notify other people that you are in a session
3. Remove pets from the room (if possible)
4. Turn phone and other devices to silent or off
5. Close door(s) to room (if possible)
6. Close all unnecessary programs and windows on computer

**If these conditions are not met, ask participant to adjust their chair, computer positioning, or body angle until their full upper body is in view with no obstructions so that ALL gestures are able to be seen.**

**Confirm Recording Now and Make Sure Participant is Pinned**

**Rename participant on zoom to ID number**

**Do NOT Proceed Until The Session Is Recording!**

- To confirm that the recording is going to download to your computer, make sure that you see Pause/Stop Recording buttons on the bottom control bar.

### **Environment Check checklist:**

#### Environment and experiment setup

- Image (i.e., camera placement) of participant and investigator should include head and shoulders in the center of the screen
- If necessary, the camera angle should be adjusted to include participant gesticulation
- Lighting should be adequate for clear visibility (i.e., facial features, object manipulation)
- Make sure camera is able to see full upper body including any space where gesturing may occur.

To prevent potential distractions from the experimental environment:

- Close household windows to reduce background noise
- Notify other people that you are in a session
- Remove pets from the room (if possible)
- Turn phone and other devices to silent or off
- Close door(s) to room (if possible)
- Close all unnecessary programs and windows on computer

### **Informed Consent**

Follow procedures.

### **Intake Form**

**“Now we will complete an online intake form. The server is secure, and I can read the questions to you if you want. This information will help us know more about you!”**

Open the Intake Form survey on Redcap and either share link with participant or share your screen to complete the survey together.

### **PHQ 9 Depression Questionnaire**

**“For the last online survey, you will be asked a few questions about how you’ve been feeling over the last two weeks.” Explain answer choices (Not at all, several days, etc.)**

Open the PHQ 9 survey on Redcap and either share link with participant or share your screen to complete the survey together.

## Western Aphasia Battery

Before administering the WAB, familiarize yourself with [the Examiner's Manual](#) and Record Form.

Materials:

- WAB Remote-Adapted Stimulus (digital)
- WAB Record Form (print)
- [telepractice and the WAB](#) guidelines

**Follow instructions and dialogue listed on the WAB Part 1 Record Form. This form also includes scoring instructions.**

## Test of Upper-Limb Apraxia

Materials:

- ✓ Apraxia Screen of TULIA (print or digital)
- ✓ Follow the instructions featured in the pdf

**“The first part of the session is now complete. We will now take a [insert break time] and reconvene at [insert time] to resume testing.”**

## Day 1 PM Procedure:

### Dialogue Speech Samples

Converse with the participant about one of the following subjects for \*at least\* two minutes:

1. **The best trip you ever took**
2. **Your favorite holiday as a child**
3. **Your worst childhood memory**
4. **When you retired**
5. **The worst trip you ever took**
6. **A happy childhood memory**
7. **When you had your first child**
8. **What you like about where you live**
9. **When you got married**
10. **Your first job**
11. **How you met your husband/wife/partner**
12. **A time you were really scared/embarrassed/angry**



## AphasiaBank Protocol

### Materials:

- ☐ Protocol Manual Script (print), also available:  
<https://talkbank.org/aphasia/protocol/english/index.html>

### Instructions:

- ☐ Allow ample time for as full a response as each participant can provide using this protocol script.
- ☐ For those unable to respond to any of the prompts for the Stroke Story, skip the Important Event task and proceed to the first Picture Description (Broken Window).
- ☐ If the participant responds to the Broken Window picture description prompt, continue with the protocol, changing the order if that helps, and returning to the initial questions if appropriate.
- ☐ If the participant does not respond to the Broken Window picture, and you believe these tasks are too difficult, you can discontinue as you see fit.
- ☐ To facilitate transcription, the examiner's speech, including verbal encouragers, should be kept to a minimum.
- ☐ Use nonverbal encouragers (e.g., head nods, facial expressions, eye contact) instead of verbal encouragers (e.g., "I see", "mhm", "yeah") whenever possible.

### Section 1: Free Speech Samples

Start with a preliminary unrecorded conversation for social exchanges, signing consent forms, explaining about recording the session, answering any questions, and so forth.

### **BEGIN RECORDING**

If your institution requires it, record the following preamble about informed consent, then lead into the first recorded protocol item (Stroke Story). If not, go straight to the Stroke Story.

Investigator:

**"This participant has signed an informed consent form. These data can be used for \_\_\_\_\_ (specify: research, teaching, or any purpose). These data are not to be used for \_\_\_\_\_ (specify any restrictions)."**

### **A. STROKE STORY and COPING**

**1. "I'm going to be asking you to do some talking. How do you think your speech is these days?"**

If no response in approximately 10 seconds, prompt:

**“How's your talking?”**

Listen, encourage full response. If no response, prompt:

**“Are you having trouble with your talking?”**

**2. “Do you remember when you had your stroke?”**

If yes, **“Please tell me about it.”**

If no, **“Well, how about your first memories after the stroke. What can you tell me about that?”**

If no response in approximately 10 seconds, prompt:

**“Try to tell me about the day you had your stroke.”**

Listen, encourage full response. If no response, prompt:

**“Do you remember your stroke?”**

At a natural juncture add:

**3. “Tell me about your recovery. What kinds of things have you done to try to get better since your stroke?”**

If no response in approximately 10 seconds, prompt:

**“Tell me about any changes you’ve needed to make in your daily life.”**

If no response, prompt: **“Did you have any therapy after your stroke?”**

**“Now I’m going to ask you to do a few more things where you need to talk. Please talk as much as you can about each one, because we’re really interested in knowing about your language.”**

## **B. IMPORTANT EVENT**

**“Thinking back, can you tell me a story about something important that happened to you in your life? It could be happy or sad or from any time --from when you were a kid or more recently.”**

If no response in approximately 10 seconds, prompt:

**“For instance, you could tell me about a trip you took or something about your family or your work --anything.”**

If no response, go on to Picture Descriptions.

## Section 2: Picture Descriptions

### **A. BROKEN WINDOW**

**“Now I’m going to show you these pictures.”**

Present picture series.

**“Take a little time to look at these pictures. They tell a story. Take a look at all of them, and then I’ll ask you to tell me the story with a beginning, a middle, and an end. You can look at the pictures as you tell the story”**

If no response in 10 seconds, give second prompt:

**“Take a look at this picture (point to first picture) and tell me what you think is happening.”**

If needed, point to each picture sequentially, giving the prompt:

**“And what happens here?”**

For each panel, if no response, provide the prompt:

**“Can you tell me anything about this picture?”**

If no response at all, prompt:

**“Is the boy kicking the ball through the window?”**

#### **4B. REFUSED UMBRELLA**

Present picture series.

**“Here are some more pictures that tell a story. Take a look at all of them, and then I’ll ask you to tell me the story with a beginning, a middle, and an end. Again, you can look at the pictures as you tell the story.”**

If no response in 10 seconds, give second prompt:

**“Look at this picture (point to first panel) and tell me what you think is happening.”**

If needed, point to each panel sequentially, giving the prompt:

**“And what happens here?”**

For each panel, if no response, provide the prompt:

**“Can you tell me anything about this picture?”**

If no response at all, prompt:

**“Did the boy refuse the umbrella?”**

#### **C. CAT RESCUE**

Present picture.

**“Here is another picture. Look at everything that’s happening and then tell me a story about what you see. Tell me the story with a beginning, a middle, and an end.”**

If no response in 10 seconds, give second prompt:

**“Take a look (point to picture) and tell me any part of the story.”**

If fewer than 2 utterances, give third prompt:

**“Anything else you can tell me about the story?”**

If no response at all, prompt:

**“Is the cat stuck in the tree?”**

### Section 3: Story Narrative

#### **CINDERELLA**

Open link for Cinderella story:

<https://aphasia.talkbank.org/protocol/english/participant/sequences/Cinderella/index.htm>  
|

**“I’m going to ask you to tell a story. Have you ever heard the story of Cinderella?”**

(Make note of answer for demographic data. If answer is no, ask participant to tell a fairy tale s/he knows.)

**“Do you remember much about it? These pictures might remind you of how it goes. Take a look at the pictures, and then I’ll close the page and ask you to tell me the story in your own words.”**

Allow participant to look through book (assist with page turning if needed), and then prompt:

**“Now tell me as much of the story of Cinderella as you can. You can use any details you know about the story, as well as the pictures you just looked at.”**

If participant gives a response of fewer than three utterances, or seems to falter, allow 10 seconds, then prompt:

**“What happened next?”**

or

**“Go on.”**

Continue until participant concludes story or has clearly finished.

If no response, prompt:

**“Did Cinderella go to the ball and meet the prince?”**

## **NEUTRAL CUE STORYTELLING \*\*\* this is not an original AphasiaBank task**

**Now I am going to ask you to tell a few stories from your personal life. First, I will give you a word and you will construct a story from your real life that relates to or involves the word given.**

Read each word below and encourage the participant to talk in complete sentences. If participant only gives a few utterances or cannot think of an event from their real life, ask them to imagine a story involving the word given.

- **clock**
- **bird**
- **hotel**
- **restaurant**

### Section 4: Procedural Discourse

#### **PEANUT BUTTER AND JELLY SANDWICH**

Do not use a picture stimulus for this task.

**“Let’s move on to something a little different. Tell me how you would make a peanut butter and jelly sandwich.”**

If no response in 10 seconds, give second prompt:

**“If you were feeling hungry for a peanut butter and jelly sandwich, how would you make it?”**

If no response, prompt:

**“Do you like eating peanut butter and jelly sandwiches?”**

#### **PROCEDURAL 2- LAUNDRY \*\*\* this is not an original AphasiaBank task**

Do not use a picture stimulus for this task.

**“Now explain to me how you do your laundry.”**

If no response in 10 seconds, give second prompt:

**“If you had dirty clothes, how would you do your laundry?”**

If no response, prompt:

**“Have you ever done laundry before?”**

#### **PROCEDURAL 3 (TEST ONLY)- GETTING DRESSED IN THE MORNING \*\*\* this is not an original AphasiaBank task**

Do not use a picture stimulus for this task.

**“How would you get dressed in the morning on a normal weekday?”**

## Day 2 AM Procedure:

### TALSA

#### Materials

- ☐ TALSA Battery website ready to be shared with participant
- ☐ <https://talsapilot.org/>

#### Instructions

- ☐ Open TALSA Battery website and navigate to Word Span-Pointing under Short Term Memory Tests --> Digit/Word Span
- ☐ Ensure sound is shared
- ☐ When test is ready to begin, give remote control to participant.
- ☐ Save the excel score sheet immediately after testing
- ☐ Repeat this process for Digit Span-Pointing

#### Scoring

-TALSA Score Sheet

### Philadelphia Naming Test

#### Materials

- PNT PowerPoint (available digitally and printed)

Have printed copy for yourself and the PowerPoint ready to be shared on screen

#### Instructions to Subject:

**“I'm going to ask you to name some pictures. A picture will appear on the computer screen. Your job is to name the picture using only one word.”**

After the subject has finished responding to an item, give him/her feedback: e.g., "good, that's a fish", or "actually, they're looking for garage here", or some variation thereof. Allow a maximum of 30 seconds for the subject's response.

### Verb Naming Test

#### Materials

1. VNT PowerPoint (available digitally and printed)
  - a. Have printed copy for yourself and the PowerPoint ready to be shared on screen

2. Follow administration and scoring instructions featured in the pdf

## **Concrete and Abstract Picture Description Task**

### **Materials**

- ❑ “Gesture\_ConcreteAbstract” PowerPoint

### **Instructions**

#### Task1: Abstract vs. concrete images

- Aim: To examine how individuals with aphasia and aged-match controls use gesture to describe **abstract vs concrete images**.

**After sharing your screen, instruct participants to describe each image they see.**

“For this task, I am going to show you some pictures. Please describe the images you see as soon as you see it. Feel free to use gestures or any method to help you describe the images.”

**After the concrete images, present the abstract images. Ask the participant to describe each image they see.**

“These next images will look different. Again, please try your best to describe the images you see.”

#### Task2: Address description task

- Aim: To examine how individuals with aphasia and aged-match controls use gesture to describe **how to get from one point to another**: Home, grocery store, family/friend home to their own home

1. “Can you describe the path you take to get from home to your grocery store”

2. “Tell me how to get from a friend/relative’s home back to your home”

If confused or no response, some probing questions like:

- Do you have any relatives or friends that live nearby?
- Do you see any relatives or friends frequently?

- Do you often drive there, or do you use a bus?

Can you describe to me how you might get to that place from your home as if I wanted to drive from your house to theirs?

Example:

For example, I often travel to my friend Josh's house. To get there, I get in my car, turn onto my street, and then drive east to the nearby highway. Once I'm on the highway, I go about three miles. I turn left onto Josh's road. It takes me about 2 minutes on that road to get to his house.

3. "Can you describe the path you took to get from your home to your work".
4. "Can you describe the path you take to get from your home to your local gas station"

## **Day 2 PM Procedure:**

### **Dialogue Speech Samples**

Converse with the participant about one of the following subjects for \*at least\* two minutes:

If one topic does not provide two minutes of conversation you may need to discuss more than one topic.

\*Do not discuss the same topics as from test session.

13. The best trip you ever took
14. Your favorite holiday as a child
15. Your worst childhood memory
16. When you retired
17. The worst trip you ever took
18. A happy childhood memory
19. When you had your first child
20. What you like about where you live
21. When you got married
22. Your first job
23. How you met your husband/wife/partner
24. A time you were really scared/embarrassed/angry



## **Repetition of AphasiaBank discourse tasks featured in Day1pm**

### **Procedural Discourse Addendum**

The last question of Procedure Discourse is different from Day1pm. See below.

#### **PROCEDURAL 4 (RETEST ONLY)- GROWING A FLOWER**

Do not use a picture for this task

**“Now explain how you would grow a flower in a garden or pot.”**

If no response in 10 seconds, prompt:

**“If you had to plant a flower, how would you make sure it grows?”**

## **Data Collection for Control Group**

### **Overview**

#### **Session 1**

1. Informed consent and intake procedure
2. PHQ9 (5-10 minutes)
3. MOCA (10-15 minutes)
4. LEAP-Q (If bilingual)
5. Discourse battery (45-60 minutes)

#### **Session 2**

1. WAIS IV
  - a. Digit span
  - b. Arithmetic
  - c. Letter number sequencing
2. Concrete and abstract picture description task
3. Address Description Task
4. Repeat discourse battery

### **Day 1 Procedure:**

#### **Before Participant Arrives:**

- Begin Teams session and have all materials and instructions ready to go at least 15 minutes early.
- Perform Internet connection check:
  - Ethernet connection (preferred) or reliable Wi-Fi. If possible, confirm the reliability of your Internet by determining bandwidth and speed
- Screen sharing device (i.e., computer, iPad) with an adequate display resolution (roughly 9 in. of screen) is required
- Built-in or external webcam/camera device
- Functioning audio system is required (i.e., microphone, speaker)
- Headphones for investigator and participant are recommended
- Recommended that device can stand on its own (i.e., not required to be handheld)
- Make sure your own experimental environment is ideal before participant arrives:
  - Close household windows to reduce background noise
  - Notify other people that you are in a session
  - Remove pets from the room (if possible)
  - Turn phone and other devices to silent or off
  - Close door(s) to room (if possible)

- o Close all unnecessary programs and windows on computer

## **Equipment Check**

**“Hello! Before we start today, let’s make sure that our equipment and surroundings are in good shape.”**

**“Can you hear me?”**

If no reply, make sure your microphone and their microphone is not muted.

If you are not muted, send first statement in chat. Wait for 30 seconds and try again.

If yes, say: “Okay, great. Now let’s test your microphone. Say a few sentences.”

If you can’t hear them clearly, ask them to speak more directly into the microphone and try again.

Once the sound check is complete, say: **“Now that we can both hear each other clearly, let’s quickly check video feeds. Can you see me?”**

If not, trouble shoot the problem.

If yes, and you cannot see the participant, make sure they have their video feed unmuted.

If yes, and you can see the participant, move on.

**“Last thing to check is to make sure we are both in quiet environments without distractions. Let’s go through the checklist together.”**

## **Environment Check checklist**

**Confirm Recording Now. Do NOT Proceed Until The Session Is Recording!**

Make sure to pin participant

Rename participant to ID number

To confirm that the recording is going to download to your computer, make sure that you see Pause/Stop Recording buttons on the bottom control bar.

## **Informed Consent**

Follow procedures.

## **Intake Form**

**“Now please proceed to second link and code, which is the online intake form. This information will help us know more about you.”**

**[Use this survey see if the participant answered YES for the bilingual question]**

## **PHQ9**

### **Instructions:**

**“I will now ask you to complete a survey privately. You will now select the third link and enter the code below. Please let me know when you’ve completed all the questions.”**

## **LEAP-Q**

**ONLY COMPLETE IF THE PARTICIPANT IS BILINGUAL**

**“I will now ask you to complete a survey privately. You will now select the third link and enter the code below. Please let me know when you’ve completed all the questions.”**

## **MOCA Administration**

See MoCA training, available online.

## **Dialogue Speech Samples**

Converse with the participant about one of the following subjects for \*at least\* two minutes:

If one topic does not provide two minutes of conversation you may need to discuss more than one topic.

- **The best trip you ever took**
- **Your favorite holiday as a child**
- **Your worst childhood memory**
- **When you retired**
- **The worst trip you ever took**
- **A happy childhood memory**
- **When you had your first child**
- **What you like about where you live**
- **When you got married**
- **Your first job**
- **How you met your husband/wife/partner**
- **A time you were really scared/embarrassed/angry**

## **AphasiaBank Protocol:**

### Section 1: Free Speech Samples

Start with a preliminary unrecorded conversation for social exchanges, signing consent forms, explaining about recording the session, answering any questions, and so forth.

### **BEGIN RECORDING**

If your institution requires it, record the following preamble about informed consent, then lead in to the first recorded protocol item (Stroke Story). If not, go straight to the Stroke Story.

Investigator:

**"This participant has signed an informed consent form. This allows data to be kept on Aphasiabank. I am going to ask you to do some talking. Please feel free to gesture in addition to your speech."**

#### **1. ILLNESS STORY AND COPING**

Question 1: "In this research project, I ask people who've had strokes to tell me what they remember about when they had their stroke. Since you haven't had a stroke, I wonder if you could tell me what you remember about any illness or injury you've had."

If no response in 10 seconds, prompt:

**"Tell me about any time you've been sick or hurt."**

At a natural juncture, add:

Question 2: "Tell me about your recovery from that illness (or injury). What kinds of things did you do to get better?"

If no response in 10 seconds, prompt:

**"Tell me about any things you did to get well."**

Question 3: "Have you had any experience with people who have a difficult time communicating?"

If yes, **"Please tell me what the problems were and what you did about it."**

If no, **"Have you ever had trouble communicating with someone, like talking to people from another country?"**

If no response in 10 seconds, prompt:

**"Tell me about a time when you had trouble communicating with someone or someone had trouble communicating with you."**

## **B. IMPORTANT EVENT**

**"Thinking back, can you tell me a story about something important that happened to you in your life? It could be happy or sad or from any time --from when you were a kid or more recently."**

If no response in approximately 10 seconds, prompt:

**"For instance, you could tell me about a trip you took or something about your family or your work --anything."**

If no response, go on to Picture Descriptions.

## **SECTION II: PICTURE DESCRIPTIONS**

### **A. BROKEN WINDOW**

**"Now I'm going to show you these pictures."**

Present picture series.

**"Take a little time to look at these pictures. They tell a story. Take a look at all of them, and then I'll ask you to tell me the story with a beginning, a middle, and an end. You can look at the pictures as you tell the story"**

If no response in 10 seconds, give second prompt:

**"Take a look at this picture (point to first picture) and tell me what you think is happening."**

If needed, point to each picture sequentially, giving the prompt:

**"And what happens here?"**

For each panel, if no response, provide the prompt:

**"Can you tell me anything about this picture?"**

If no response at all, prompt:

**"Is the boy kicking the ball through the window?"**

### **4B. REFUSED UMBRELLA**

Present picture series.

**"Here are some more pictures that tell a story. Take a look at all of them, and then I'll ask you to tell me the story with a beginning, a middle, and an end. Again, you can look at the pictures as you tell the story."**

If no response in 10 seconds, give second prompt:

**"Look at this picture (point to first panel) and tell me what you think is happening."**

If needed, point to each panel sequentially, giving the prompt:

**“And what happens here?”**

For each panel, if no response, provide the prompt:

**“Can you tell me anything about this picture?”**

If no response at all, prompt:

**“Did the boy refuse the umbrella?”**

### **C. CAT RESCUE**

Present picture.

**“Here is another picture. Look at everything that’s happening and then tell me a story about what you see. Tell me the story with a beginning, a middle, and an end.”**

If no response in 10 seconds, give second prompt:

**“Take a look (point to picture) and tell me any part of the story.”**

If fewer than 2 utterances, give third prompt:

**“Anything else you can tell me about the story?”**

If no response at all, prompt:

**“Is the cat stuck in the tree?”**

### **SECTION III: STORY NARRATIVE**

#### **CINDERELLA**

Open link for Cinderella story:

<https://aphasia.talkbank.org/protocol/english/participant/sequences/Cinderella/index.htm>  
↓

**“I’m going to ask you to tell a story. Have you ever heard the story of Cinderella?”**

(Make note of answer for demographic data. If answer is no, ask participant to tell a fairy tale s/he knows.)

**“Do you remember much about it? These pictures might remind you of how it goes. Take a look at the pictures, and then I’ll put the book away and ask you to tell me the story in your own words.”**

Allow participant to look through book (assist with page turning if needed), and then prompt:

**“Now tell me as much of the story of Cinderella as you can. You can use any details you know about the story, as well as the pictures you just looked at.”**

If participant gives a response of fewer than three utterances, or seems to falter, allow 10 seconds, then prompt:

**“What happened next?”**

or

**“Go on.”**

Continue until participant concludes story or has clearly finished.

If no response, prompt:

**“Did Cinderella go to the ball and meet the prince?”**

#### **NEUTRAL CUE STORYTELLING \*\* not an original AphasiaBank task**

**Now I am going to ask you to tell a few stories from your personal life. First, I will give you a word and you will construct a story from your real life that relates to or involves the word given.**

Read each word below and encourage the participant to talk in complete sentences. If participant only gives a few utterances or cannot think of an event from their real life, ask them to imagine a story involving the word given.

- **clock**
- **bird**
- **hotel**
- **restaurant**

#### **SECTION IV: PROCEDURAL DISCOURSE PEANUT BUTTER AND JELLY SANDWICH**

Do not use a picture stimulus for this task.

**“Let’s move on to something a little different. Tell me how you would make a peanut butter and jelly sandwich.”**

If no response in 10 seconds, give second prompt:

**“If you were feeling hungry for a peanut butter and jelly sandwich, how would you make it?”**

If no response, prompt:

**“Do you like eating peanut butter and jelly sandwiches?”**

#### **PROCEDURAL 2- LAUNDRY \*\* not an original AphasiaBank task**

Do not use a picture stimulus for this task.

**“Now explain to me how you do your laundry.”**



If no response in 10 seconds, give second prompt:

**“If you had dirty clothes, how would you do your laundry?”**

If no response, prompt:

**“Have you ever done laundry before?”**

**PROCEDURAL 3 (TEST ONLY)- GETTING DRESSED IN THE MORNING \*\* not an original AphasiaBank task**

Do not use a picture stimulus for this task.

**“How would you get dressed in the morning on a normal weekday?”**

## **Day 2 Procedure**

### **WAIS IV**

Follow administration and scoring instructions on QGlobal for the following sections:

- a. Digit span
- b. Arithmetic
- c. Letter number sequencing

### **Concrete and abstract picture description task**

\* Make sure “[Gesture ConcreteAbstract](#)” powerpoint is open and ready to go. \*

#### Task1: Abstract vs. concrete images

- Aim: To examine how individuals with aphasia and aged-match controls use gesture to describe **abstract vs concrete images**.

**After sharing your screen, instruct participants to describe each image they see, first all 25 concrete images, then all 25 abstract images.**

#### Task2: Address description task

- Aim: To examine how individuals with aphasia and aged-match controls use gesture to describe **how to get from one point to another**: Home, grocery store, family/friend home to their own home
1. “Can you describe the path you take to get from home to your grocery store”
  2. “Tell me how to get from a friend/relative's home back to your home”

3. "Can you describe the path you took to get from your home to your work".
4. "Can you describe the path you take to get from your home to your local gas station?"

### **Dialogue Speech Samples**

Converse with the participant about one or more of the following subjects for \*at least\* two minutes:

If one topic does not provide two minutes of conversation you may need to discuss more than one topic.

It is important to not discuss the topics used in subject's test session.

25. **The best trip you ever took**
26. **Your favorite holiday as a child**
27. **Your worst childhood memory**
28. **When you retired**
29. **The worst trip you ever took**
30. **A happy childhood memory**
31. **When you had your first child**
32. **What you like about where you live**
33. **When you got married**
34. **Your first job**
35. **How you met your husband/wife/partner**
36. **A time you were really scared/embarrassed/angry**

### **AphasiaBank Discourse Battery**

[Repeat AphasiaBank Discourse items from Day1]

### **Procedural Discourse Addendum**

[Repeat Procedural Discourse Items. The last item is different. See below]

### **PROCEDURAL 4 (RETEST ONLY)- GROWING A FLOWER**

Do not use a picture for this task

**"Now explain how you would grow a flower in a garden or pot."**

If no response in 10 seconds, prompt:

**"If you had to plant a flower, how would you make sure it grows?"**

## **Data Transcription and Checking**

### **Automatic Speech Recognition Software Installation and Usage**

Talkbank Batchalign2 website homepage:

<https://github.com/talkbank/batchalign2?tab=readme-ov-file>

### **Checking Automated Transcripts**

#### **Setting up CLAN**

1. Make sure you've got the most [updated version of CLAN](#)
2. Finding CHAT file and corresponding media file
  - a. Once on SharePoint, navigate to the subject data folder that corresponds to the subject ID you are transcribing (Documents --> General --> Research Labs --> Neural Research Lab --> Aphasiabank Gesture and Discourse Study --> Admin Docs --> Subject Data)
  - b. Look for the file ending in .cha and locate the .mp4 file with the same subject number and day
    - i. e.g. "rc110\_day1\_pm.cha" and "rc110\_day1\_pm.mp4"
  - c. Save a copy of each file to your computer to work with
    - i. rc110\_day1\_pm\_GO(your initials)
3. Setting up CHAT file
  - a. Removing %wor tier and naming gems
    - i. Select "mode" in the top bar
    - ii. Select "hide dependent tiers"
4. Signing up for which video/chat file
5. Basic [CLAN shortcuts/ function keys](#):
  - a. F4 – plays current bulleted line
  - b. F5 – redo bullet
  - c. Esc-8 – continuous play
  - d. Esc-A – open/hide bullets
  - e. Command 1 and 2 changes speaker to investigator/participant
  - f. Esc-L – Check file for errors
6. If you want more information, watch these [CLAN screencasts](#)

## First steps

1. Add Gem markers
  - a. Gem markers are used to indicate where a new task is starting
  - b. To place gem markers:
    - i. Using the table below, find the cue sentence for the corresponding task
      1. If there is conversation prior to the cue sentence that is not related to the previous task, code as www with an %exp tier denoting “task transition”.
    - ii. Hit enter to create a new line above the cue sentence
    - iii. Type: @G:[TAB]TaskName (tab after the colon, then type the task name)

Discourse Task	Gem	Cue Sentence/Additional Information
@G: Conversation	Conversation Sample	First sentence of each transcript. Goal is 2 minutes of participant talking. Prompts/Starting sentences: <ol style="list-style-type: none"><li>1. The best trip you ever took</li><li>2. Your favorite holiday as a child</li><li>3. Your worst childhood memory</li><li>4. When you retired</li><li>5. The worst trip you ever took</li><li>6. A happy childhood memory</li><li>7. When you had your first child</li><li>8. What you like about where you live</li><li>9. When you got married</li><li>10. Your first job</li><li>11. How you met your husband/wife/partner</li><li>12. A time you were really scared/embarrassed/angry</li></ol>
@G: Speech	Free Speech	For RC: “I’m going to be asking you to do some talking. How do you think your speech is these days?”  For NBD:

		<p>"In this research project, I ask people who've had strokes to tell me what they remember about when they had their stroke. Since you haven't had a stroke, I wonder if you could tell me what you remember about any illness or injury you've had."</p> <p>If no response in 10 seconds, prompt:</p> <p>"Tell me about any time you've been sick or hurt."</p> <p>At a natural juncture, add:</p> <p>Question 2: "Tell me about your recovery from that illness (or injury). What kinds of things did you do to get better?"</p> <p>If no response in 10 seconds, prompt:</p> <p>"Tell me about any things you did to get well."</p> <p>Question 3: "Have you had any experience with people who have a difficult time communicating?"</p> <p>If yes, "Please tell me what the problems were and what you did about it."</p> <p>If no, "Have you ever had trouble communicating with someone, like talking to people from another country?"</p> <p>If no response in 10 seconds, prompt:</p> <p>"Tell me about a time when you had trouble communicating with someone or someone had trouble communicating with you."</p>
@G: Stroke	Stroke Story	<p>For RC:</p> <p><b>2. "Do you remember when you had your stroke?"</b></p>

		<p>If yes, <b>“Please tell me about it.”</b></p> <p>If no, <b>“Well, how about your first memories after the stroke. What can you tell me about that?”</b></p> <p>If no response in approximately 10 seconds, prompt:</p> <p><b>“Try to tell me about the day you had your stroke.”</b></p> <p>Listen, encourage full response. If no response, prompt:</p> <p><b>“Do you remember your stroke?”</b></p> <p>At a natural juncture add:</p> <p><b>3. "Tell me about your recovery. What kinds of things have you done to try to get better since your stroke?"</b></p> <p>If no response in approximately 10 seconds, prompt:</p> <p><b>“Tell me about any changes you’ve needed to make in your daily life.”</b></p> <p>If no response, prompt: <b>“Did you have any therapy after your stroke?”</b></p>
@G: Important_Event	Important Event	<p>“Thinking back, can you tell me a story about something important...”</p> <p>If no response in approximately 10 seconds, prompt:</p> <p><b>"For instance, you could tell me about a trip you took or something about your family or your work -- anything."</b></p> <p>If no response, go on to Picture Descriptions</p>
@G: Window	Broken Window	<b>“Now I’m going to show you these pictures...”</b>

		<p><b>“Take a little time to look at these pictures. They tell a story. Take a look at all of them, and then I’ll ask you to tell me the story with a beginning, a middle, and an end. You can look at the pictures as you tell the story”</b></p> <p>If no response in 10 seconds, give second prompt:</p> <p><b>“Take a look at this picture (point to first picture) and tell me what you think is happening.”</b></p> <p>If needed, point to each picture sequentially, giving the prompt:</p> <p><b>“And what happens here?”</b></p> <p>For each panel, if no response, provide the prompt:</p> <p><b>“Can you tell me anything about this picture?”</b></p> <p>If no response at all, prompt:</p> <p><b>“Is the boy kicking the ball through the window?”</b></p>
@G: Umbrella	Refused Umbrella	<p><b>“Here are some more pictures that tell a story. Take a look at all of them, and then I’ll ask you to tell me the story with a beginning, a middle, and an end. Again, you can look at the pictures as you tell the story.”</b></p> <p>If no response in 10 seconds, give second prompt:</p> <p><b>“Look at this picture (point to first panel) and tell me what you think is happening.”</b></p> <p>If needed, point to each panel sequentially, giving the prompt:</p>

		<p><b>“And what happens here?”</b></p> <p>For each panel, if no response, provide the prompt:</p> <p><b>“Can you tell me anything about this picture?”</b></p> <p>If no response at all, prompt:</p> <p><b>“Did the boy refuse the umbrella?”</b></p>
@G: Cat	Cat Rescue	<p><b>“Here is another picture. Look at everything that’s happening and then tell me a story about what you see. Tell me the story with a beginning, a middle, and an end.”</b></p> <p>If no response in 10 seconds, give second prompt:</p> <p><b>“Take a look (point to picture)and tell me any part of the story.”</b></p> <p>If fewer than 2 utterances, give third prompt:</p> <p><b>“Anything else you can tell me about the story?”</b></p> <p>If no response at all, prompt:</p> <p><b>“Is the cat stuck in the tree?”</b></p>
@G: Cinderella_Intro	Cinderella Introduction (*not* the full story)	<p>“I’m going to ask you to tell a story. Have you ever heard the story of Cinderella?”</p>
@G: Cinderella	Cinderella (only the participant retelling the story)	<p><b>“Now tell me as much of the story of Cinderella as you can. You can use any details you know about the story, as well as the pictures you just looked at.”</b></p> <p>If participant gives a response of fewer than three utterances, or seems to falter, allow 10 seconds, then prompt:</p>



		<p><b>“What happened next?”</b></p> <p>or</p> <p><b>“Go on.”</b></p> <p>Continue until participant concludes story or has clearly finished.</p> <p>If no response, prompt:</p> <p><b>“Did Cinderella go to the ball and meet the prince?”</b></p>
@G: Sandwich	Sandwich	<p>“Let’s move on to something a little different. Tell me how you would make a peanut butter and jelly sandwich.”</p> <p>If no response in 10 seconds, give second prompt:</p> <p><b>“If you were feeling hungry for a peanut butter and jelly sandwich, how would you make it?”</b></p> <p>If no response, prompt:</p> <p><b>"Do you like eating peanut butter and jelly sandwiches?"</b></p>
@G: Laundry	Laundry [only on Retest]	<p>“Now explain to me how you do your laundry.”</p> <p>If no response in 10 seconds, give second prompt:</p> <p><b>“If you had dirty clothes, how would you do your laundry?”</b></p> <p>If no response, prompt:</p> <p><b>“Have you ever done laundry before?”</b></p>
@G: Dress	Dress	<p>“How would you get dressed in the morning on a normal weekday?”</p>
@G: Gardening	Gardening [only on Retest]	<p>“How would you grow a flower in a pot or garden?”</p>

		If no response in 10 seconds, prompt:  <b>“If you had to plant a flower, how would you make sure it grows?”</b>
@G: NeutralCue	Neutral Cue [with four keywords]	"Now I am going to ask you to tell a few stories from your personal life. First, I will give you a word..."
@G: Wechsler	WAIS testing [only on NBD day 2]	"I'm going to say some numbers and listen carefully..."
@G: Abstract	Picture descriptions [only on NBD day 2]	"For this task I am going to show you some pictures and your job is to describe the images when you see them."
@G: Address	Providing directions [only on NBD day 2]	"I'm going to ask you to describe a few things for me. Can you describe the path..."

2. Once you begin coding, there are some items to check before putting in CHAT codes:

- a. Confirm speaker tiers are titled PAR and INV (participant and interviewer)
- b. Utterance termination decisions (scroll to end to see detailed utterance decision explanation)
  - i. Split utterances where needed
  - i. join utterances where needed
- c. Utterance termination markers
  - i. The table below contains the most common termination markers
- d. Remove additional dialogue between Investigator and Participant. Any information that does not pertain to the prompt can be removed.
  - i. The transcription should end as soon as the participant's monologue ends.
  - ii. If the Investigator asks follow-up questions, those should not be recorded UNLESS the participant has very little output and the investigator is encouraging them to speak.

Code	What it's for	Example	<a href="#">CHAT manual page for more info</a>
.	Marks the end of declarative sentences (aka statements). Make sure you place a space before the period at the end of each utterance	PAR: I like to walk outside . (note the space BEFORE the period)	Pg 63

?	Marks the end of a question. For example, wh-questions or declarative sentences ending in rising intonation.	PAR: What did you say ?	Pg 64
!	Marks the end of an imperative sentence.	PAR: I know !	Pg 64
+/. and +,	Interruption: used when utterance is interrupted by another speaker. "+," code is used on the following utterance that continues the original statement (not always used!)	PAR: I wanted to go +/ . INV: what ? PAR: +, home after this .  PAR: she has +/ . INV: hello ?	Pg 70
+//	Self-interruption (+//.)	PAR: and I found the +//. PAR: what ? PAR: cat outside .	Pg 70
+...	Trailing off	PAR: I am a very +...	Pg 69

### 3. Check Speaker ID

- Sometimes the ASR program misidentifies who the speaker is. When listening to each utterance, make sure the speaker ID matches to the true speaker
- To change Speaker ID, click on the line you want to change -> click on CLAN menu -> Tiers -> Select correct speaker (or shortcut Command 1 or 2)

### 4. Check accuracy of words transcribed

- ASR does not always transcribe every word correct. Listen to each utterance and change any incorrect words and/or codes

## Defining Utterances

In discourse analysis, an utterance is the smallest unit of speech that carries meaning / is on a particular topic. Utterances are often easy to delineate in written language, as they are complete thoughts or full sentences. However, in many cases, we don't use complete thoughts or full sentences when we speak. Therefore, utterances become more difficult to define.

To define utterances for the purposes, we will use C-Units, or "Communication units."

Communication units are defined as "an independent clause and its modifiers". **A c-unit is an utterance that cannot be further divided without the disappearance of its essential meaning, plus any subordinate clause that is part of the independent predication.**

Subordinate clauses depend on the main clause to make sense. They cannot stand alone or be separated from the main clause. So a C-unit will either consist of a main clause or a main clause with its subordinating clause(s).

- **Clause / Independent clause:** A clause that can stand alone as a complete sentence
- **Subordinate clause / dependent clause:** Not a sentence that can stand on its own, but a phrase containing a verb.

The following examples are broken down into main and subordinate clauses. The **subject** is in **bold** and the predicate is in italics . The main clause is underlined.

<u>Speaker</u>	<u>Main Clause</u>	<u>Subordinate Clause</u>
The boy was standing beside the car when the man approached him.	<b>The boy</b> was standing beside the car	when <b>the man</b> approached him.
Anastasia was angry with her mother because she didn't get to buy a toy.	<b>Anastasia</b> was angry with her mother	because <b>she</b> didn't get to buy a toy.

When the boy looked around his  
bedroom, the frog had disappeared.

**the frog** had disappeared

When **the boy** looked around his  
bedroom

Notice the subordinate clauses cannot stand alone or are incomplete without the main clause. Thus, they are not separated (segmented further) from the main clause. All of the above utterances consist of **one C-unit**.

When segmenting into C-units it is important to understand the different types of conjunctions that are used to link clauses. There are Coordinating Conjunctions and Subordinating Conjunctions.

**Coordinating Conjunctions:** The segmenting rule is simple when utterances contain coordinating conjunctions. These conjunctions link two **main** clauses. The conjunctions “and”, “but”, “or” and sometimes “so” would begin the second utterance. Thus, those clauses can be separated/segmented into two utterances that can stand alone (or two C-units) unless the coordinated clause does not have its own subject or predicate. In the examples that follow, the backslash indicates where the utterance would be segmented:

The frog was sitting on a lily pad / and then it jumped in.

Segmented:

C The frog was sitting on a lily pad.

C and then it jumped in.

The frog was sitting on a lily pad and then jumped in.

Segmented:

C The frog was sitting on a lily pad and then jumped in.

**Subordinating Conjunctions:** These link a main clause and a subordinate clause. A C-unit includes the main clause with all subordinate clauses attached to it. Thus, there is no segmentation needed when an utterance contains a subordinating conjunction. The following are subordinating conjunctions:

- because, that, when, who, after, before, so (that), which, although, if, unless, while, as, how, until, as\_\_as, like, where

Some examples of single C-units containing subordinating conjunctions:

C He went to the store because he was out of milk.

C When the boy saw it, the frog jumped.

C He is the boy who is in my math class.

Often times, when listening to speech, there is a pause between a main clause and a subordinate clause. This would be considered one C-unit (not segmented at the pause). Other rules for segmenting C-units include:

- Sentence fragments are counted as separate C-units when the final intonation contour of the utterance indicates that a complete thought has been spoken.  
Example: That boy . . . doggie go . . . frog jumping
- Sentence fragments or responses to questions or prompts from the examiner are counted as separate C-units.  
Example:  
E What did you do next?  
C Shopped.
- Direct quotes found embedded in or as part of an utterance are counted as one C-unit  
Example:  
E Then what happened?  
C and the boy went over and said, "That is my frog".
- Successive main clauses that occur in direct quotes are counted as separate C-units  
Example: And he said, "I am ready/I want to go to the store now".  
C and he said I am ready.

C I want to go to the store now.

- Count utterances that are not grammatically correct as a C-unit. Grammaticality doesn't matter in defining a C-Unit.  
C They goed to the store
- Commentary can happen within an utterance, and since we don't want to capture commentary in the final language sample, we will exclude it. There are a few ways to do this:

The first is if the commentary actually separates two utterances:

PAR <The boy > [/] no <the girl went to the store> [/] crap no the boy went to the garage

C <The boy > [/] no <the girl went to the store> [/]

C crap no . [+ exc] – where “crap no” is the commentary that we are excluding.

C the boy went to the garage .

But note, without commentary, these retracings would be a single c-unit:

C <The boy > [/] no [/] <the girl went to the store> [/] the boy went to the garage .

NOTE: The way CLAN reads this is, “The boy went to the garage.”

The second is if the commentary is inserted in the middle of what would be a single c-unit:

If the Participant makes comments (e.g., “I don't know”, “oh no”) in the middle of an utterance, put those words inside angle brackets with [/] afterward so they will not be counted as extra words in the analysis.

PAR: once upon a time this little girl named I don't know we'll call her Rebecca had a cat

C once upon a time this little girl named <I don't know> [/] <we'll call her> [/] Rebecca had a cat .

NOTE: The way CLAN reads this is, "Once upon a time this little girl named Rebecca had a cat."

PAR: and so they the stepsisters and the stepmom she got in so much trouble that they locked her in her room

C and so <they> [/] <the stepsisters and the stepmom> [/] she got in so much trouble that they locked her in her room

NOTE: The way CLAN reads this is, "And so she got in so much trouble that they locked her in her room."

**Exercise: Segment the utterances into C-units.**

E So tell me about your birthday.

C I like well when it was my birthday I had a party and all my aunties and uncles come to my party and my cousin Donna well when I is not at my party and when I open my present I say thank you and if when if we have birthday cake all day I was very tired I went my I went to sleep right away I was so xxx then I waked up.

// [we have put mazes, or dysfluencies, in parentheses here just for emphasis]

E So tell me about your birthday.

C (I like well) when it was my birthday I had a party

C (and) all my aunties and uncles come to my party.

C (and) my cousin Donna (well when I ) is not at my party.

C (and) when I open my present I say thank you .

C (and if when if) we have birthday cake all day.

C I was very tired .

C (I went my) I went to sleep right away.

C I was so xxx .

C then I waked up.



## UTTERANCE EXAMPLES

Sometimes, individuals with aphasia simply name objects/things. This looks like “listing” and is more common in telegraphic, non-fluent aphasia. If there aren’t any other words, like prepositions or connectors, we put objects on separate utterance lines. Example:

PAR: jelly

PAR: knife

PAR: bread

PAR: butter

## Adding in CHAT codes

1. Use the table below to add in appropriate codes (codes higher on the list are used more frequent

Code	Used for:	Example:	<a href="#">CHAT manual page for more info</a>
&-	Use to code the fillers: “uh”, “um”, “er”, “like”, and “eh”	PAR: &-uh I’m not sure actually	Pg 49
[//]	Revision	PAR: after [//] before the dance . PAR: <after they> [//] before she danced .	Pg 78
[/]	Repetition	PAR: the dog [/] dog ran . PAR: <the dog> [/] the dog ran .	Pg 77
&+[text]	Use to code phonological fragments (a sound like b or k).	PAR: &+b well I think .	Pg 49
[* X:X] [* p:n], [* n:k], [* s:r], [* p:w], [* s:ur], [* s:uk], [* n:uk]	Paraphasias: (*see flow chart below to know which one to code) [* p:n] - Phonemic non word [* p:w] - Phonemic real word [* n:k] - Neologism, known target [* n:uk] - Neologism, unknown target [* s:r] - Semantically related [* s:ur] - Unrelated error [* s:uk] - Unknown error/target	PAR: Disaney [: Disney] [* p:n] we went . PAR: louder [: ladder] [* p:w] PAR: mom [: dad] [* s:r] came in .  ** always code pronoun misuse (e.g., he for she) as an [* s:r] error	Pg 96/110
@n @u	Neologisms: If using IPA at any point, telling CLAN it’s IPA uses @u	PAR: savock@n  PAR: ipa@u	Pg 96/111
‡	Satellite marker (F2 key followed by V key): Following these kinds of words when they are the first word in an utterance and function as	PAR: so ‡ she gave him the dress . PAR: see ‡ there was this girl . PAR: mom ‡ come here	Pg 62

	communicators and have multiple parts of speech (words that only function as interjections <u>do not</u> require a satellite marker): alright, no, okay, right, so, sure, well, see, say, +summons		
&*	Used for overlapping speakers. Often utilized when they overlap by one word such as “yes”, “mhm”, and “okay”.	PAR: and then she &*INV:mhm wanted to go home .	Pg 67
[ : text]	For replacing a paraphasia for which you know the target * be sure to include a SPACE between the colon and the replacement word*	PAR: I gent [ : went] [* p:n] to the store .	Pg 75
text_text	Formulaic language	PAR: he gave you_know lots of time	
@l	Listed letters	PAR: it starts with a c@l .	Pg 46/51
+”/. and +”	Use for quoted utterances: +”/. is used to denote a quote is coming in the next utterance +” is coded in front of the directly quoted material. Used in conjunction with +”/.	PAR: the little bear said +”/. PAR: +” please give me your honey .	Pg 71
xxx	Use this code when you can’t hear or understand what the speaker is saying	PAR: I want xxx . PAR: the xxx .	Pg 48
www and %exp	Not coded and explanation of why - Use for anything before the gem cue sentence, such as extraneous chat - Have standardized %exp (“task transition”)	Instead of: PAR: oh wait my computer is freezing up... let me just fix this before we start next task... one second... trying something.  Use: PAR: www .	Pg 48

		%exp: Participant fixing his computer before next task	
[+ exc]	Exclusion: We exclude any commentary related to participant performance or task difficulty. Any commentary that is unrelated to the task is considered a “non-task utterance”. Examples of non-task utterances include comments about a word being incorrect, not being able to think of a word, the difficulty of a task, etc. This code is placed after the special terminator marker (period, exclamation point, etc.)	If there are “oops” “uh” from INV, code with [+ exc]  PAR: <the boy > [/] no <the girl went to the store> [/]. PAR: crap no that’s wrong . [+ exc] PAR: the boy went to the garage .	
Incomplete words	Incomplete words can be written with the omitted material in parentheses	(be)cause and (a)bout doc(tor) (h)imself wan(t) nothin(g)	Pg 54

**Things to remember while coding:**

1. Only capitalize "I" (and its contractions) and proper nouns
2. Periods are NOT included in abbreviations ("Mrs." coded as "Mrs")
3. City names should have an underscore connecting them: Kansas\_City, Saint\_Louis
4. Only use tab when following the utterance marker of \*INV and \*PAR. Only spaces go into paraphasia codes like [\* n:k], not tabs.

**Finalizing CHAT file**

1. Hit ESC+I to look for obvious things that CHAT hates
  - a. Adjust any obvious mistakes (tiers, transcriptions, codes, bullets, etc.)
2. Checking Codes once finished
3. Saving new CHAT file

## **Resources**

### **Ideal Environment Checklist**

From: <https://pubmed.ncbi.nlm.nih.gov/34019776/>

#### Internet connection

1. Ethernet connection (preferred) or reliable Wi-Fi. If possible, confirm the reliability of your Internet by determining bandwidth and speed
2. Screen sharing device (i.e., computer, iPad) with an adequate display resolution (roughly 9 in. of screen) is required
3. Built-in or external webcam/camera device
4. Functioning audio system is required (i.e., microphone, speaker)
5. Headphones for investigator and participant are recommended
6. Recommended that device can stand on its own (i.e., not required to be handheld)

#### Environment and experiment setup

1. Image (i.e., camera placement) of participant and investigator should include head and shoulders in the center of the screen
2. If necessary, the camera angle should be adjusted to include participant gesticulation
3. Lighting should be adequate for clear visibility (i.e., facial features, object manipulation)
4. Make sure camera is able to see full upper body including any space where gesturing may occur.

#### To prevent potential distractions from the experimental environment:

1. Close household windows to reduce background noise
2. Notify other people that you are in a session
3. Remove pets from the room (if possible)
4. Turn phone and other devices to silent or off
5. Close door(s) to room (if possible)
6. Close all unnecessary programs and windows on computer

### **Teleassessment Guidelines (AphasiaBank)**

via MacWhinney, B., Fromm, D., Forbes, M. & Holland, A. (2011). AphasiaBank: Methods for studying discourse. *Aphasiology*, 25, 1286-1307.

#### General tips:

- Allow ample time for as full a response as each participant can provide using this protocol script.
- To facilitate transcription, the examiner's speech, including verbal encouragers, should be kept to a minimum. Use nonverbal encouragers (e.g., head nods,

facial expressions, eye contact) instead of verbal encouragers (e.g., “I see”, “mhm”, “yeah”) whenever possible.

#### Exceptional scenarios

- For those unable to respond to any of the prompts for the Stroke Story, skip the Important Event task and proceed to the first Picture Description (Broken Window).
- If the participant responds to the Broken Window picture description prompt, continue with the protocol, changing the order if that helps, and returning to the initial questions if appropriate.
- If the participant does not respond to the Broken Window picture, and you believe these tasks are too difficult, you can discontinue as you see fit.

#### New tasks

##### 1. Narrative 2:

- a. From: Kurczek, J., Wechsler, E., Ahuja, S., Jensen, U., Cohen, N. J., Tranel, D., & Duff, M. (2015). Differential contributions of hippocampus and medial prefrontal cortex to self-projection and self-referential processing. *Neuropsychologia*, 73, 116–126.
  - Participants were given a neutral cue word and asked to (re)construct events across four time conditions: real past, imagined past, imagined present, and future. These event narratives were analyzed for the number of internal and external details to quantify the extent of episodic (re)experiencing.
  - We use only “real past”
  - Neutral cue words were selected from the Affective Norms for Emotional Words database
    1. Specifically used: clock, bird, hotel, restaurant

##### 2. Procedural 2 and 3:

- a. From: Ulatowska, H. K., Doyel, A. W., Stern, R. F., Haynes, S. M., & North, A. J. (1983). Production of procedural discourse in aphasia. *Brain and Language*, 18(2), 315–341.
  - Changing a light bulb in a ceiling fixture, making a favorite sandwich, making scrambled eggs, and instructing a person from another country on how to shop in an American supermarket.
  - Subjects to assume listener does not know how to do these tasks
  - Varying levels of difficulty of task
  - Several steps, not food related
  - Test and Retest: Sandwich and laundry
  - Test: Getting dressed in the morning (weekend in the summer)

- Retest: How to grow a flower outside