Language-Specific Attention Treatment
Clinician Instructions

Richard K. Peach, PhD

Table of Contents

Lexical Processing Tasks

1) Spatial Attention (see Coslett, 1999; Crosson et al., 2007)

Materials: PowerPoint Slides (Computer)

Initial Baseline

Instructions:
Present the line drawings (Baseline_Probe PPT-Slides 2-41) on a computer monitor. Ask the patient to name each picture as quickly as possible (maximum equals 20 seconds). Score correct and incorrect responses.

Scoring: 1 = correct   0 = incorrect or no response

Date Administered: _____

Slide #	Item	Score	Score	Score
2	bell			
3	finger/pointer/forefinger/right index finger/pointing finger			
4	kite			
5	sweater/sweat shirt/pullover/pullover sweater/shirt			
6	swan/goose/duck			
7	ant/insect/spider/bug			
8	pliers/wrench			
9	monkey/chimp/chimpanzee			
10	envelope/sealed envelope			
11	leopard/tiger/panther/cheetah			
12	bottle/wine bottle			
13	tomato/pepper/radish/onion/peach/fruit			
14	pot/pan/saucepan			
15	church/chapel/church house			
16	pepper/green pepper/bell pepper/artichoke			
17	nail/spike			
18	violin/bass/cello			
19	barrel			
20	shoe/right shoe			
21	elephant			
22	candle			
23	flute/clarinet/coronet/windpipe			
24	giraffe/ostrich/zebra			

Slide #	Item	Score	Score	Score
25	gorilla/ape			
26	mitten/glove/left mitten			
27	strawberry/raspberry			
28	clock/mantel clock			
29	turtle/tortoise/box turtle			
30	paintbrush/ink pen			
31	cloud/bushes			
32	guitar/acoustic guitar			
33	drum			
34	celery/lettuce/staff of celery/celery stalk			
35	ring/pearl ring			
36	motorcycle/motor bike/bike			
37	stove/oven/range/gas stove			
38	fence/picket fence/gate			
39	pear			
40	sailboat/boat			
41	button/wheel			
	Total Score			

Next Steps:

Total Score ≥ 32	Spatial Attention Training Complete. Proceed to Lexical Processing-Attention Allocation Task.
Total Score < 32	Administer baseline task two more times. Proceed to Phase A Treatment Task.

Phase A: Treatment Task

Instructions:
Alternately present the warning signal (visual and auditory) and line drawings (Phase A PPT-Slides 3-81) on a computer monitor placed 45 degrees to the left of the patient's body midline. Sit behind and to the left of the patient. Ask the patient to name each item (a maximum of 20 seconds is allowed). If the patient gives the incorrect name, model the correct response and ask the patient to repeat it. Indicate level of success with model. Modeling can be provided no more than three times per item.

Scoring: 1 = correct   0 = incorrect or no response   Also note any modeling provided.

Date Administered: _____

Slide #	Item	Score	Model?	Score	Model?	Score	Model?	Score	Model?
3	anchor/ship's anchor								
5	alligator/crocodile								
7	drum								
9	vase/flowered vase								
11	carrot								
13	jacket/shirt/coat/sport jacket								
15	arm/left arm/hand								
17	artichoke/avocado/ pineapple/bud/brussel sprout/squash								
19	envelope/sealed envelope								
21	bicycle/bike								
23	lemon								
25	bread/loaf of bread/slice of bread								
27	candle								
29	spoon/teaspoon								
31	Dresser/bureau/chest of drawers/chest drawers/bureau drawers/desk								
33	bell								
35	fence/picket fence/gate								
37	grapes/bunch of grapes								
39	whistle								
41	thumb/finger								
43	sandwich								
45	guitar/acoustic guitar								
47	hammer								

Slide #	Item	Score	Model?	Score	Model?	Score	Model?	Score	Model?
49	harp								
51	blouse/shirt/jacket/ sweater/coat/ladies jacket/stylish shirt								
53	television (TV)/television set								
55	sock								
57	swing/swinging chair								
59	cap/hat								
61	Strawberry/raspberry								
63	ant/insect/spider/bug								
65	rhinoceros/rhino/ hippopotamus								
67	pitcher/jug/water pitcher								
69	leopard/tiger/cheetah/ jaguar								
71	frog								
73	paintbrush/ink pen								
75	penguin/pelican								
77	eagle/hawk/bird/bald eagle/parrot								
79	rocking chair/chair/rocker								
81	screwdriver								
	Total Score								

Next Steps:

Total Score ≥ 32	When patient reaches criterion level on two consecutive treatment trials, Phase A is complete. Proceed to Phase B of Spatial Attention at this time.
Total Score < 32	Repeat Phase A Treatment Task during the next treatment trial. Spatial Attention treatment is administered for a maximum of three sessions total.

Phase B: Treatment Task

Instructions:
Alternately present the warning signal (4 second tone) and line drawings (Phase B PPT-Slides 3-81) on a computer monitor placed 45 degrees to the left of the patient's body midline. Sit behind and to the left of the patient. Ask the patient to name each item (a maximum of 20 seconds is allowed). If the patient gives the incorrect name, model the correct response and ask the patient to repeat it. Indicate level of success with model. Modeling can be provided no more than three times per item.

Scoring:　　　1 = correct　　　0 = incorrect or no response　　　Also note any modeling provided.

Treatment Session *(circle one):* Session 1　　　Session 2　　　Session 3

Date Administered: _____

Slide #	Item	Score	Model?	Score	Model?	Score	Model?	Score	Model?
3	apple/fruit								
5	arrow/one-way sign								
7	swan/goose/duck								
9	wrench								
11	celery								
13	pear								
15	rooster/chicken/hen/ turkey/cock								
17	(roller) skate								
19	clock/mantle clock								
21	thimble/nimble/thumb nimble/thumb cap								
23	flute/clarinet/coronet/ windpipe								
25	goat/billy goat/ mule/horse/donkey								
27	snail/slug/shell/snail shell								
29	barrel								
31	flower/rose/marigold/daisy								
33	lock/padlock								
35	windmill/windbreaker								
37	ostrich/stork/turkey								
39	boot/shoe/rubber boot/half-boot								
41	mushroom								
43	vest/vestcoat								
45	Box/cube/shot box/index card box/cardboard box/index file box								
47	elephant								

Slide #	Item	Score	Model?	Score	Model?	Score	Model?	Score	Model?
51	ladder/part of a ladder								
53	pliers/wrench								
55	tree								
57	skunk/raccoon								
59	cherry/peach/grape/plum								
61	pants/slacks								
63	flag/flag and staff/flag pole								
65	toe/big toe/toes/right big toe								
67	coat/jacket								
69	stool/chair								
71	violin/bass/cello								
73	cabbage/lettuce								
75	plug/electric plug								
77	mountain/mountain peak/snowcap/hill								
79	finger/pointer/ forefinger/right index finger, pointing finger								
81	tie/necktie								
	Total Score								

Next Steps:

Total Score ≥ 32	When patient reaches criterion level on two consecutive treatment trials, Phase B is complete. Proceed to Phase C of Spatial Attention at this time.
Total Score < 32	Repeat Phase B Treatment Task during the next treatment trial. Spatial Attention treatment is administered for a maximum of three sessions total.

Phase C: Treatment Task

Instructions:
Alternately present the warning signal (.5 second tone) and line drawings (Phase C PPT-Slides 22-102) on a computer monitor placed 45 degrees to the left of the patient's body midline. Sit behind and to the left of the patient. Ask the patient to name each item (a maximum of 20 seconds is allowed). If the patient gives the incorrect name, model the correct response and ask the patient to repeat it. Indicate level of success with model. Modeling can be provided no more than three times per item.

Scoring: 1 = correct   0 = incorrect or no response   Also note any modeling provided.

Treatment Session *(circle one):*   Session 1   Session 2   Session 3

Date Administered: _____

Slide #	Item	Score	Model?	Score	Model?	Score	Model?	Score	Model?
3	corn/ear of corn/corn on cob								
5	bottle/wine bottle								
7	camel								
9	pencil								
11	button/wheel								
13	key								
15	football								
17	monkey/chimp/ chimpanzee								
19	barn/farm/barn and silo/barn house/farmhouse								
21	mitten/glove/left mitten								
23	peacock/turkey/rooster/ ostrich/bird								
25	clown/clown face								
27	Airplane/plane/jet/jet plane/jet airplane								
29	snowman								
31	kettle/tea kettle/teapot/pot								
33	toothbrush/brush								
35	wagon/cart/wheelbarrow/ carriage								
37	leaf/maple leaf/oak leaf								
39	shirt								
41	church/chapel/church house								
43	Beetle/insect/bug/ cockroach/roach/cricket/ ant/dico								

Slide #	Item	Score	Model?	Score	Model?	Score	Model?	Score	Model?
47	doll/girl/baby/little girl/female doll/child/baby doll								
49	salt								
51	zebra								
53	pot/pan/saucepan								
55	cake/layer cake/piece of cake/three-layer cake								
57	Tomato/pepper/radish/ onion/peach/fruit								
59	umbrella								
61	star								
63	basket/picnic basket/lunch basket/wicker basket								
65	giraffe/ostrich/zebra								
67	peach/orange/apple/plum/ pear/fruit								
69	belt/collar								
71	glove/right glove								
73	shoe/right shoe								
75	cup/coffee cup/teacup								
77	pineapple								
79	fork								
81	crown								
	Total Score								

Next Steps:

Total Score ≥ 32	When patient reaches criterion level on two consecutive treatment trials, Phase C is complete. See training completion criteria below. Administer Spatial Attention Probe at start of the following session.
Total Score < 32	Repeat Phase C Treatment Task during the next treatment trial. Spatial Attention treatment is administered for a maximum of three sessions total.

Spatial Attention Training Completion Criteria:
- Reach 80% accuracy on Phase C Treatment Task across two trials

	Trial 1	Trial 2
Date Achieved		

OR
- Complete three consecutive sessions of Attention Allocation Training

	Session 1	Session 2	Session 3
Date Achieved			
Phase(s) Completed			

Administer Probe during following treatment session.

Probe Task

Instructions:
Present line drawings (Baseline_Probe PPT-Slides 2-41) on a computer monitor. Ask the patient to name each picture as quickly as possible (a maximum of 20 seconds is allowed). Score correct and incorrect responses.

Scoring: 1 = correct   0 = incorrect or no response

Slide #	Item	Date: _____ Score	Date: _____ Score	Date: _____ Score
2	bell			
3	finger/pointer/forefinger/right index finger, pointing finger			
4	kite			
5	sweater/sweat shirt/pullover/pullover sweater/shirt			
6	swan/goose/duck			
7	ant/insect/spider/bug			
8	pliers/wrench			
9	monkey/chimp/chimpanzee			
10	envelope/sealed envelope			
11	leopard/tiger/panther/cheetah			
12	bottle/wine bottle			
13	tomato/pepper/radish/onion/peach/fruit			
14	pot/pan/saucepan			
15	church/chapel/church house			
16	pepper/green pepper/bell pepper/artichoke			
17	nail/spike			
18	violin/bass/cello			
19	barrel			
20	shoe/right shoe			
21	elephant			
22	candle			
23	flute/clarinet/coronet/windpipe			
24	giraffe/ostrich/zebra			
25	gorilla/ape			
26	mitten/glove/left mitten			
27	strawberry/raspberry			
28	clock/mantel clock			
29	turtle/tortoise/box turtle			
30	paintbrush/ink pen			
31	cloud/bushes			

Slide #	Item	Date: _____ Score	Date: _____ Score	Date: _____ Score
32	guitar/acoustic guitar			
33	drum			
34	celery/lettuce/staff of celery/celery stalk			
35	ring/pearl ring			
36	motorcycle/motor bike/bike			
37	stove/oven/range/gas stove			
38	fence/picket fence/gate			
39	pear			
40	sailboat/boat			
41	button/wheel			
	Total Score			

Lexical Processing Tasks

2) Attention Allocation (see LaPointe & Erickson, 1991; also McNeil, Doyle, Hula, Rubinsky, Fossett, & Matthews, 2004; Hula & McNeil, 2008).

Materials: Wisconsin Card-Sorting Test (WCST); audio file for secondary word list.

Attention Allocation: Initial Baseline

Instructions:
Sit across from patient on right side. Instruct the patient to sort the cards according to color using the computer program. Confirm that he or she understands this task. Then, give the patient the following directions: "You are going to hear some words. I want you to raise your hand whenever you hear the word 'cat.' **Listen carefully and try not to miss any.** Raise your hand whenever you hear the word 'cat.' At the same time, continue to sort the cards by color on the computer. **Try to do this as correctly as possible.** Do you understand? Are you ready? Let's begin." At this time, play the audio file for the baseline task, and record the patient's responses in the appropriate column.

Scoring:
Word Identification   1 = hand raise   0 = no response
Card sort   1 = correct   0 = incorrect

See following page for stimuli.

Baseline Score Summary:

	Word Identification	Card Sort
Baseline 1		
Baseline 2		
Baseline 3		

Attention Allocation: Initial Baseline

Date Administered: _____

Baseline Set: Target Word = Cat

#	Item	Hand Raise A	Hand Raise B
1	Barn	■	
2	Bag	■	
3	CAT		■
4	Bench	■	
5	Bird	■	
6	CAT		■
7	Bowl	■	
8	CAT		■
9	Ale	■	
10	Ape	■	
11	CAT		■
12	Chain	■	
13	Chair	■	
14	Chin	■	
15	CAT		■
16	Wheel	■	
17	Wood	■	
18	Bag	■	
19	CAT		■
20	Bar	■	
21	Dress	■	
22	CAT		■
23	Fence	■	
24	CAT		■
25	Fish	■	
		A	B
Subtotals			

#	Item	Hand Raise A	Hand Raise B
26	Gold	■	
27	Ring	■	
28	CAT		■
29	Beef	■	
30	Beer	■	
31	Grass	■	
32	Ice	■	
33	CAT		■
34	Roof	■	
35	Judge	■	
36	CAT		■
37	Rose	■	
38	Hood	■	
39	Hound	■	
40	CAT		■
41	Mail	■	
42	Sheep	■	
43	Nose	■	
44	Page	■	
45	Shell	■	
46	Pen	■	
47	CAT		■
48	Chin	■	
49	Dear	■	
50	Dawn	■	
		A	B
Subtotals			

#	Item	Hand Raise A	Hand Raise B
51	CAT		■
52	Leaf	■	
53	CAT		■
54	Lip	■	
55	Hay	■	
56	Heel	■	
57	Fan	■	
58	Dip	■	
59	Dive	■	
60	Drain	■	
61	Drum	■	
62	Egg	■	
63	Web	■	
64	Deer	■	
65	Axe	■	
66	CAT		■
67	Bell	■	
68	Dove	■	
69	CAT		■
70	CAT		■
71	Grape	■	
72	CAT		■
73	Hoof	■	
74	Mug	■	
75	CAT		■
		A	B
Subtotals			

#	Item	Hand Raise A	Hand Raise B
76	CAT		■
77	Nun	■	
78	Aim	■	
79	Fail	■	
80	Fair	■	
81	CAT		■
82	Flea	■	
83	Flow	■	
84	Flush	■	
85	Fly	■	
86	Fog	■	
87	Fool	■	
88	Fox	■	
89	CAT		■
90	Fun	■	
91	Glad	■	
92	Golf	■	
93	CAT		■
94	Grace	■	
95	Grave	■	
96	CAT		■
97	Ham	■	
98	CAT		■
99	Haul	■	
100	Haze	■	
		A	B
Subtotals			
Total Scores			

Next Steps:

Column A Total Score ≥ 20 with ≥ 50% accuracy on Card Sorting	Discontinue Attention Allocation Training. Proceed to Sentence Processing Tasks.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting	Administer baseline task 2 more times. Proceed to Phase A Treatment Task.

Phase A: Treatment Task

General Instructions:
Sit across from the patient on the right side. Give the patient the following directions for the practice set and each treatment trial: "Again, you are going to hear some words. I want you to raise your hand whenever you hear the word '(name target word).' Listen carefully and try not to miss any. Raise your hand whenever you hear the word '(name target word).' Do you understand? Are you ready? Let's begin." Then, play the audio file for each treatment trial, recording the patient's responses in the appropriate column.

General Scoring: 1 = hand raise 0 = no response

Practice Set Instructions:
Present ten words according to the general instructions above. Give feedback to the patient on accuracy prior to beginning the treatment trials.

#	Item	Hand Raise A	Hand Raise B
1	Arm		
2	Phone		
3	CAT		
4	Horn		
5	CAT		

#	Item	Hand Raise A	Hand Raise B
6	Spoon		
7	Doll		
8	Bee		
9	CAT		
10	Gin		
Total Scores		A	*B*

Treatment Set Instructions:
Present each treatment trial of 100 words (on subsequent pages) according to the general instructions above.

Cueing:
Provide feedback to the patient following each treatment trial. If the patient does not reach 80% accuracy during a treatment trial provide cueing during the next trial according to the following hierarchy:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue during trial (100%, 75%, 50%, or 25% of trial).

If the patient reaches 80% accuracy without cueing, move to Phase B.

Phase A Treatment: *(circle one)*   1   2   3

Level of Cueing Provided (description according to hierarchy; attempts 2 and 3 only)	

Treatment Trial #1: Target Word = Wash

#	Item	Hand Raise A	Hand Raise B
1	Firm	▓	
2	WASH		▓
3	Bear	▓	
4	Dog	▓	
5	Babe	▓	
6	Ivy	▓	
7	Jade	▓	
8	Inn	▓	
9	WASH		▓
10	Pan	▓	
11	WASH		▓
12	Bone	▓	
13	Bow	▓	
14	WASH		▓
15	Beach	▓	
16	Join	▓	
17	WASH		▓
18	Jump	▓	
19	Pause	▓	
20	Pawn	▓	
21	Smile	▓	
22	WASH		▓
23	WASH		▓
24	Bib	▓	
25	WASH		▓
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
26	Lamb	▓	
27	Laugh	▓	
28	Lawn	▓	
29	WASH		▓
30	Pig	▓	
31	Rug	▓	
32	Yard	▓	
33	Grow	▓	
34	Cell	▓	
35	Chew	▓	
36	WASH		▓
37	Lease	▓	
38	WASH		▓
39	Plumb	▓	
40	WASH		▓
41	Aisle	▓	
42	Dump	▓	
43	WASH		▓
44	Deed	▓	
45	WASH		▓
46	Lime	▓	
47	WASH		▓
48	Lose	▓	
49	Pray	▓	
50	Prime	▓	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
51	WASH		▓
52	Knife	▓	
53	Lion	▓	
54	Dream	▓	
55	WASH		▓
56	Loss	▓	
57	Loud	▓	
58	Mad	▓	
59	Prop	▓	
60	Pull	▓	
61	Band	▓	
62	WASH		▓
63	Frame	▓	
64	Eel	▓	
65	Elm	▓	
66	Mare	▓	
67	Mild	▓	
68	Mine	▓	
69	Ram	▓	
70	Rap	▓	
71	WASH		▓
72	Iron	▓	
73	Gush	▓	
74	WASH		▓
75	Fell	▓	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
76	Mold	▓	
77	Ox	▓	
78	WASH		▓
79	Ray	▓	
80	WASH		▓
81	Ear	▓	
82	Jar	▓	
83	Beard	▓	
84	Gain	▓	
85	Germ	▓	
86	Nail	▓	
87	Nod	▓	
88	Numb	▓	
89	WASH		▓
90	Ring	▓	
91	Hear	▓	
92	WASH		▓
93	Leg	▓	
94	Hen	▓	
95	Herb	▓	
96	Owl	▓	
97	WASH		▓
98	Pain	▓	
99	Rod	▓	
100	Roll	▓	
Subtotals		A	B
Total Scores			

Next Steps:

Column A Total Score ≥ 20 (no cueing)	Give feedback. Proceed directly to Phase B of Attention Allocation.
Column A Total Score ≥ 20 (with any type of cueing)	Give feedback. Proceed to Treatment Trial #2. Modify the level of cueing as appropriate.
Column A Total Score < 20 (with or without cueing)	

Phase A Treatment*: (circle one)*   1   2   3

Treatment Trial #2: Target Word = Moon

Level of Cueing Provided (description according to hierarchy)	

#	Item	Hand Raise A	Hand Raise B
1	MOON		▓
2	Church	▓	
3	Pass	▓	
4	Path	▓	
5	Rush	▓	
6	MOON		▓
7	Rye	▓	
8	Ice	▓	
9	MOON		▓
10	Look	▓	
11	Juice	▓	
12	MOON		▓
13	Peel	▓	
14	Phase	▓	
15	MOON		▓
16	Sail	▓	
17	Sea	▓	
18	MOON		▓
19	Zoo	▓	
20	Face	▓	
21	Loop	▓	
22	Bath	▓	
23	MOON		▓
24	MOON		▓
25	Seal	▓	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
26	Seed	▓	
27	Send	▓	
28	Veil	▓	
29	Zero	▓	
30	MOON		▓
31	Dew	▓	
32	Brush	▓	
33	Pope	▓	
34	Pour	▓	
35	Shame	▓	
36	Shear	▓	
37	Shed	▓	
38	MOON		▓
39	Zeal	▓	
40	MOON		▓
41	Rear	▓	
42	Pie	▓	
43	Prize	▓	
44	MOON		▓
45	Ship	▓	
46	Sing	▓	
47	Slap	▓	
48	Verb	▓	
49	Youth	▓	
50	Help	▓	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
51	Lice	▓	
52	MOON		▓
53	Prow	▓	
54	Raid	▓	
55	Slice	▓	
56	MOON		▓
57	MOON		▓
58	Vice	▓	
59	Yelp	▓	
60	Show	▓	
61	MOON		▓
62	Drop	▓	
63	Rare	▓	
64	Reap	▓	
65	MOON		▓
66	Soap	▓	
67	Sod	▓	
68	Vile	▓	
69	Yell	▓	
70	Past	▓	
71	Flag	▓	
72	Pole	▓	
73	Short	▓	
74	MOON		▓
75	Soil	▓	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
76	Sop	▓	
77	Sore	▓	
78	Wail	▓	
79	MOON		▓
80	Real	▓	
81	MOON		▓
82	Fee	▓	
83	MOON		▓
84	Rode	▓	
85	Spare	▓	
86	Spear	▓	
87	Sue	▓	
88	MOON		▓
89	Worse	▓	
90	Wife	▓	
91	MOON		▓
92	Inch	▓	
93	Rug	▓	
94	Rung	▓	
95	MOON		▓
96	Swell	▓	
97	Sum	▓	
98	Wave	▓	
99	MOON		▓
100	Age	▓	
Subtotals		A	B
Total Scores			

Next Steps:

Column A Total Score ≥ 20 (no cueing)	Give feedback. Proceed directly to Phase B of Attention Allocation.
Column A Total Score ≥ 20 (with any type of cueing)	Give feedback. Proceed to Treatment Trial #3. Modify the level of cueing as appropriate.
Column A Total Score < 20 (with our without cueing)	

Phase A Treatment*: (circle one)*   1   2   3

Treatment Trial #3: Target Word = Dog

Level of Cueing Provided (description according to hierarchy)	

#	Item	Hand Raise A	Hand Raise B
1	Thin	■	
2	DOG		■
3	Find	■	
4	Room	■	
5	DOG		■
6	Five	■	
7	Boy	■	
8	Top	■	
9	DOG		■
10	Clear	■	
11	Plain	■	
12	Rum	■	
13	Palm	■	
14	DOG		■
15	Case	■	
16	Best	■	
17	Black	■	
18	DOG		■
19	Blue	■	
20	DOG		■
21	Rim	■	
22	Smash	■	
23	DOG		■
24	Side	■	
25	Young	■	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
26	Knew	■	
27	Tree	■	
28	North	■	
29	Near	■	
30	Play	■	
31	DOG		■
32	Zone	■	
33	Church	■	
34	Felt	■	
35	Melt	■	
36	DOG		■
37	DOG		■
38	Call	■	
39	Cage	■	
40	Stage	■	
41	Ace	■	
42	DOG		■
43	Whole	■	
44	Line	■	
45	DOG		■
46	Means	■	
47	Space	■	
48	Hour	■	
49	Late	■	
50	Hope	■	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
51	DOG		■
52	Wound	■	
53	Watch	■	
54	DOG		■
55	Act	■	
56	DOG		■
57	Read	■	
58	Cold	■	
59	DOG		■
60	Wide	■	
61	School	■	
62	Earn	■	
63	Field	■	
64	Seen	■	
65	DOG		■
66	Miss	■	
67	DOG		■
68	Food	■	
69	Hear	■	
70	Fall	■	
71	White	■	
72	Gym	■	
73	DOG	■	
74	Self	■	
75	Cost	■	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
76	Six	■	
77	Point	■	
78	DOG		■
79	Deal	■	
80	Friend	■	
81	DOG		■
82	Need	■	
83	Run	■	
84	Poor	■	
85	Rib	■	
86	Job	■	
87	Piece	■	
88	Shot	■	
89	Wrong	■	
90	DOG		■
91	Chance	■	
92	DOG		■
93	Town	■	
94	Turn	■	
95	Court	■	
96	DOG		■
97	DOG		■
98	Pool	■	
99	Stop	■	
100	March	■	
Subtotals		A	B
Total Scores			

Next Steps:

Column A Total Score ≥ 20 (no cueing)	Give feedback. Proceed directly to Phase B of Attention Allocation.
Column A Total Score ≥ 20 (with any type of cueing)	Give feedback. Proceed to Treatment Trial #4. Modify the level of cueing as appropriate.
Column A Total Score < 20 (with our without cueing)	

Phase A Treatment*: (circle one)*   *1   2   3*

Treatment Trial #4: Target Word = Base

Level of Cueing Provided (description according to hierarchy)	

#	Item	Hand Raise A	Hand Raise B
1	BASE		■
2	Group	■	
3	Rate	■	
4	BASE		■
5	Learned	■	
6	Type	■	
7	One	■	
8	Two	■	
9	BASE		■
10	Top	■	
11	Club	■	
12	Green	■	
13	Art	■	
14	Plane	■	
15	Choice	■	
16	Shirt	■	
17	Drive	■	
18	BASE		■
19	Late	■	
20	BASE		■
21	Stood	■	
22	Gave	■	
23	BASE		■
24	Wish	■	
25	BASE		■
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
26	King	■	
27	BASE		■
28	Role	■	
29	Pool	■	
30	Black	■	
31	BASE		■
32	BASE		■
33	View	■	
34	Mouth	■	
35	Date	■	
36	BASE		■
37	Court	■	
38	BASE		■
39	North	■	
40	Run	■	
41	Kind	■	
42	White	■	
43	Heart	■	
44	Clay	■	
45	Round	■	
46	Heat	■	
47	Tree	■	
48	Weight	■	
49	BASE		■
50	Read	■	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
51	BASE		■
52	Earth	■	
53	Rest	■	
54	Thin	■	
55	Show	■	
56	BASE		■
57	Point	■	
58	Team	■	
59	Room	■	
60	BASE		■
61	Red	■	
62	Zoom	■	
63	BASE		■
64	Fact	■	
65	Watch	■	
66	Drink	■	
67	BASE		■
68	Neck	■	
69	Zone	■	
70	Job	■	
71	Hands	■	
72	Week	■	
73	Ran	■	
74	Trip	■	
75	Camp	■	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
76	Nice	■	
77	Wheat	■	
78	Rich	■	
79	Youth	■	
80	BASE		■
81	BASE		■
82	Flat	■	
83	Note	■	
84	BASE		■
85	Mile	■	
86	Quiet	■	
87	Twice	■	
88	BASE		■
89	March	■	
90	Child	■	
91	Word	■	
92	Poor	■	
93	BASE		■
94	BASE		■
95	Hill	■	
96	BASE		■
97	Thick	■	
98	Wall	■	
99	BASE		■
100	March	■	
Subtotals		A	B
Total Scores			

Next Steps:

Column A Total Score ≥ 20 (no cueing)	Give feedback. Proceed directly to Phase B of Attention Allocation.
Column A Total Score ≥ 20 (with any type of cueing)	Give feedback and repeat Phase A Training. Attention Allocation training should be completed a maximum of three times total. Modify the level of cueing as appropriate.
Column A Total Score < 20 (with our without cueing)	

Phase B: Treatment Task

Instructions:
Sit across from patient on right side. Instruct the patient to sort the cards according to number or shape (alternate choice) using the computer program, and confirm that they still understand this part of the task. Then, give the patient the following directions for each treatment trial: "Again, you are going to hear some words. I want you to raise your hand whenever you hear the word '(name target word).' **Listen carefully and try not to miss any**. Raise your hand whenever you hear the word '(name target word).' At the same time, continue to sort the cards by number/shape on the computer. **Try to do this as correctly as possible**. Do you understand? Are you ready? Let's begin." Reinforce the idea that the primary task is to identify the target words. Have the patient start sorting the cards, and then simultaneously play the audio file containing each treatment trial, recording the patient's responses in the appropriate column.

Cueing:
If the patient does not reach 80% accuracy for word identification with at least 50% accuracy on card sorting during a treatment trial, provide cueing during the next trial according to the following hierarchy:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue during trial (100%, 75%, 50%, or 25% of trial).

If the patient reaches 80% accuracy in word identification and at least 50% accuracy on card sorting without cueing, move to the Sentence Processing Tasks of the L-SAT protocol.

Scoring:
Word Identification   1 = hand raise   0 = no response
Card sort   1 = correct   0 = incorrect

Phase B Treatment: (circle one)   1   2   3

Level of Cueing Provided (description according to hierarchy; attempts 2 and 3 only)	

Treatment Trial #1: Target Word = Wash

#	Item	Hand Raise A	Hand Raise B
1	Plumb	▓	
2	Elm	▓	
3	Gush	▓	
4	WASH		▓
5	Rap	▓	
6	WASH		▓
7	Loud	▓	
8	Mare	▓	
9	Join	▓	
10	Yard	▓	
11	Pig	▓	
12	WASH		▓
13	Gain	▓	
14	Lime	▓	
15	Lease	▓	
16	Bone	▓	
17	WASH		▓
18	Rod	▓	
19	WASH		▓
20	Prime	▓	
21	Laugh	▓	
22	Ring	▓	
23	Mold	▓	
24	Leg	▓	
25	Jump	▓	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
26	Prop	▓	
27	Bib	▓	
28	Ray	▓	
29	Inn	▓	
30	Bear	▓	
31	WASH		▓
32	Mine	▓	
33	Mild	▓	
34	Beach	▓	
35	Mad	▓	
36	Frame	▓	
37	WASH		▓
38	Pan	▓	
39	WASH		▓
40	Owl	▓	
41	WASH		▓
42	Firm	▓	
43	WASH		▓
44	Ivy	▓	
45	Cell	▓	
46	Jar	▓	
47	WASH		▓
48	Grow	▓	
49	Numb	▓	
50	Hear	▓	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
51	Smile	▓	
52	WASH		▓
53	Deed	▓	
54	Lion	▓	
55	Ram	▓	
56	Dream	▓	
57	Germ	▓	
58	Band	▓	
59	Jade	▓	
60	WASH		▓
61	WASH		▓
62	Loss	▓	
63	WASH		▓
64	Ear	▓	
65	Lose	▓	
66	Pawn	▓	
67	Pray	▓	
68	Rug	▓	
69	WASH		▓
70	Eel	▓	
71	Hen	▓	
72	Ox	▓	
73	Chew	▓	
74	Roll	▓	
75	Pull	▓	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
76	WASH		▓
77	Dog	▓	
78	WASH	▓	
79	Dump	▓	
80	WASH	▓	
81	Lamb	▓	
82	Nail	▓	
83	WASH	▓	
84	WASH	▓	
85	Nod	▓	
86	Herb	▓	
87	Pause	▓	
88	WASH		▓
89	Iron	▓	
90	Knife	▓	
91	Lawn	▓	
92	Beard	▓	
93	Bow	▓	
94	Babe	▓	
95	Aisle	▓	
96	WASH		▓
97	WASH		▓
98	Fell	▓	
99	Pain	▓	
100	WASH		▓
Subtotals		A	B
Total Scores			

Next Steps:

Column A Total Score ≥ 20 with ≥ 50% accuracy on Card Sorting (no cueing)	Give feedback. See Attention Allocation Training Completion Criteria.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting (with any type of cueing)	Give feedback. Proceed to Treatment Trial #2. Modify the level of cueing as appropriate.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting (with or without cueing)	

Phase B Treatment: (circle one) 1 2 3

Treatment Trial #2: Target Word = Moon

Level of Cueing Provided (description according to hierarchy)	

#	Item	Hand Raise A	Hand Raise B
1	Slap	■	
2	Youth	■	
3	MOON		■
4	Prow	■	
5	Veil	■	
6	MOON		■
7	Sea	■	
8	Vile	■	
9	Raid	■	
10	Wail	■	
11	MOON		■
12	Send	■	
13	Juice	■	
14	Pope	■	
15	Age	■	
16	MOON		■
17	Rye	■	
18	Brush	■	
19	Slice	■	
20	Yelp	■	
21	MOON		■
22	Path	■	
23	Pass	■	
24	MOON		■
25	Flag	■	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
26	Short	■	
27	MOON		■
28	Rush	■	
29	Show	■	
30	Dew	■	
31	MOON		■
32	Peel	■	
33	MOON		■
34	Fee	■	
35	Zero	■	
36	Sod	■	
37	MOON		■
38	Sue	■	
39	MOON		■
40	Bath	■	
41	Ice	■	
42	MOON		■
43	Loop	■	
44	MOON		■
45	Lice	■	
46	Rode	■	
47	Shame	■	
48	Look	■	
49	Soil	■	
50	Yell	■	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
51	MOON		■
52	Help	■	
53	Rear	■	
54	Inch	■	
55	Verb	■	
56	Rare	■	
57	Pole	■	
58	Pie	■	
59	Swell	■	
60	Sum	■	
61	Sore	■	
62	MOON		■
63	Spare	■	
64	MOON		■
65	Past	■	
66	MOON	■	
67	Prize	■	
68	MOON		■
69	Wife	■	
70	Zoo	■	
71	Shed	■	
72	Seal	■	
73	Rug	■	
74	MOON		■
75	Wave	■	
Subtotals		A	B

#	Item	Hand Raise A	Hand Raise B
76	Drop	■	
77	Spear	■	
78	Sing	■	
79	MOON		■
80	Reap	■	
81	Pour	■	
82	Rung	■	
83	MOON		■
84	Real	■	
85	Phase	■	
86	Seed	■	
87	Church	■	
88	Vice	■	
89	Ship	■	
90	MOON		■
91	Face	■	
92	MOON		■
93	Sop	■	
94	Shear	■	
95	Zeal	■	
96	Sail	■	
97	Soap	■	
98	Worse	■	
99	MOON		■
100	MOON		■
Subtotals		A	B
Total Scores			

Next Steps:

Column A Total Score ≥ 20 with ≥ 50% accuracy on Card Sorting (no cueing)	Give feedback. See Attention Allocation Training Completion Criteria.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting (with any type of cueing)	Give feedback. Proceed to Treatment Trial #3. Modify the level of cueing as appropriate.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting (with or without cueing)	

Phase B Treatment: (circle one)   1   2   3

Treatment Trial #3: Target Word = Dog

Level of Cueing Provided (description according to hierarchy)	

#	Item	Hand Raise A	B		#	Item	Hand Raise A	B		#	Item	Hand Raise A	B		#	Item	Hand Raise A	B
1	Plain	■			26	Stage	■			51	Point	■			76	Line	■	
2	Read	■			27	Need	■			52	Case	■			77	Ace	■	
3	Palm	■			28	Wound	■			53	Miss	■			78	Clear	■	
4	Boy	■			29	Food	■			54	DOG		■		79	Fall	■	
5	Late	■			30	White	■			55	Piece	■			80	DOG		■
6	Cold	■			31	DOG		■		56	March	■			81	Top	■	
7	DOG		■		32	Gym	■			57	Find	■			82	Blue	■	
8	Room	■			33	DOG		■		58	DOG		■		83	Near	■	
9	Five	■			34	Stop	■			59	DOG		■		84	Best	■	
10	School	■			35	DOG		■		60	DOG		■		85	Court	■	
11	Hour	■			36	Turn	■			61	Side	■			86	DOG		■
12	Friend	■			37	Deal	■			62	Pool	■			87	Rum	■	
13	Rim	■			38	DOG		■		63	DOG		■		88	DOG		■
14	Knew	■			39	Zone	■			64	Cage	■			89	Self	■	
15	DOG		■		40	Hear	■			65	Space	■			90	Tree	■	
16	Hope	■			41	DOG		■		66	Job	■			91	DOG		■
17	Poor	■			42	DOG		■		67	Play	■			92	Watch	■	
18	Shot	■			43	DOG		■		68	DOG		■		93	Field	■	
19	Wide	■			44	Rib	■			69	Young	■			94	Whole	■	
20	Earn	■			45	Seen	■			70	DOG		■		95	DOG		■
21	Six	■			46	Wrong	■			71	Smash	■			96	Black	■	
22	DOG		■		47	Cost	■			72	Church	■			97	North	■	
23	DOG		■		48	DOG		■		73	Felt	■			98	Means	■	
24	Call	■			49	Town	■			74	Act	■			99	DOG		■
25	Chance	■			50	Thin	■			75	Run	■			100	Melt	■	
		A	B				A	B				A	B				A	B
Subtotals					**Subtotals**					**Subtotals**					**Subtotals**			
															Total Scores			

Next Steps:

Column A Total Score ≥ 20 with ≥ 50% accuracy on Card Sorting (no cueing)	Give feedback. See Attention Allocation Training Completion Criteria.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting (with any type of cueing)	Give feedback. Proceed to Treatment Trial #4. Modify the level of cueing as appropriate.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting (with or without cueing)	

Phase B Treatment*: (circle one)*   1   2   3

Treatment Trial #4: Target Word = Base

Level of Cueing Provided (description according to hierarchy)	

#	Item	Hand Raise A	B
1	Child	■	
2	BASE		■
3	Flat	■	
4	BASE		■
5	Heat	■	
6	BASE		■
7	Room	■	
8	Quiet	■	
9	BASE		■
10	Type	■	
11	Hill	■	
12	Stood	■	
13	Zone	■	
14	Youth	■	
15	Nice	■	
16	BASE		■
17	BASE		■
18	Mouth	■	
19	March	■	
20	Pool	■	
21	Two	■	
22	King	■	
23	BASE		■
24	Court	■	
25	Top	■	
		A	B
Subtotals			

#	Item	Hand Raise A	B
26	BASE		■
27	BASE		■
28	Word	■	
29	Rest	■	
30	Date	■	
31	Wall	■	
32	BASE		■
33	Wish	■	
34	Gave	■	
35	Plane	■	
36	Zoom	■	
37	Learned	■	
38	BASE		■
39	BASE		■
40	Neck	■	
41	Ran	■	
42	Clay	■	
43	BASE		■
44	Thick	■	
45	Role	■	
46	Kind	■	
47	Wheat	■	
48	Drink	■	
49	BASE		■
50	Heart	■	
		A	B
Subtotals			

#	Item	Hand Raise A	B
51	Round	■	
52	BASE		■
53	White	■	
54	BASE		■
55	Tree	■	
56	Point	■	
57	North	■	
58	BASE		■
59	BASE		■
60	Poor	■	
61	Earth	■	
62	BASE		■
63	Rich	■	
64	Red	■	
65	Week	■	
66	Hands	■	
67	One	■	
68	Fact	■	
69	Green	■	
70	BASE		■
71	Drive	■	
72	Read	■	
73	Shirt	■	
74	Group	■	
75	Thin	■	
		A	B
Subtotals			

#	Item	Hand Raise A	B
76	Run	■	
77	Job	■	
78	Club	■	
79	View	■	
80	Show	■	
81	BASE		■
82	Black	■	
83	Trip	■	
84	Art	■	
85	Team	■	
86	Note	■	
87	BASE		■
88	Watch	■	
89	BASE		■
90	Rate	■	
91	BASE		■
92	BASE		■
93	Late	■	
94	Camp	■	
95	March	■	
96	BASE		■
97	Choice	■	
98	Twice	■	
99	Weight	■	
100	Mile	■	
		A	B
Subtotals			
Total Scores			

Next Steps:

Column A Total Score ≥ 20 with ≥ 50% accuracy on Card Sorting (no cueing)	Give feedback. See Attention Allocation Training Completion Criteria.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting	Give feedback, and repeat Phase B Training. Attention Allocation training should be completed a maximum of three times total. Modify the level of cueing as appropriate.
Column A Total Score < 20 and/or < 50% accuracy on Card Sorting	

Attention Allocation Training Completion Criteria:

- Reach 80% accuracy for word identification and at least 50% accuracy concurrently for card sorting on Phase B treatment trials on two consecutive attempts. Administer probe below at the start of next treatment session.

	Attempt 1	Attempt 2
Date Achieved		

OR

- Attempt Attention Allocation Training three times.

	Attempt 1	Attempt 2	Attempt 3
Date Achieved			
Phase(s) Completed			

Attention Allocation: Probe (administered under same conditions as Baseline Task)

Date Administered: _____

Probe Set: Target Word = Cat with competing card sorting

#	Item	Hand Raise A	B
1	Barn	▓	
2	Bag	▓	
3	CAT		▓
4	Bench	▓	
5	Bird	▓	
6	CAT		▓
7	Bowl	▓	
8	CAT		▓
9	Ale	▓	
10	Ape	▓	
11	CAT		▓
12	Chain	▓	
13	Chair	▓	
14	Chin	▓	
15	CAT		▓
16	Wheel	▓	
17	Wood	▓	
18	Bag	▓	
19	CAT		▓
20	Bar	▓	
21	Dress	▓	
22	CAT		▓
23	Fence	▓	
24	CAT		▓
25	Fish	▓	
		A	B
Subtotals			

#	Item	Hand Raise A	B
26	Gold	▓	
27	Ring	▓	
28	CAT		▓
29	Beef	▓	
30	Beer	▓	
31	Grass	▓	
32	Ice	▓	
33	CAT		▓
34	Roof	▓	
35	Judge	▓	
36	CAT		▓
37	Rose	▓	
38	Hood	▓	
39	Hound	▓	
40	CAT		▓
41	Mail	▓	
42	Sheep	▓	
43	Nose	▓	
44	Page	▓	
45	Shell	▓	
46	Pen	▓	
47	CAT		▓
48	Chin	▓	
49	Dear	▓	
50	Dawn	▓	
		A	B
Subtotals			

#	Item	Hand Raise A	B
51	CAT		▓
52	Leaf	▓	
53	CAT		▓
54	Lip	▓	
55	Hay	▓	
56	Heel	▓	
57	Fan	▓	
58	Dip	▓	
59	Dive	▓	
60	Drain	▓	
61	Drum	▓	
62	Egg	▓	
63	Web	▓	
64	Deer	▓	
65	Axe	▓	
66	CAT		▓
67	Bell	▓	
68	Dove	▓	
69	CAT		▓
70	CAT		▓
71	Grape	▓	
72	CAT		▓
73	Hoof	▓	
74	Mug	▓	
75	CAT		▓
		A	B
Subtotals			

#	Item	Hand Raise A	B
76	CAT		▓
77	Nun	▓	
78	Aim	▓	
79	Fail	▓	
80	Fair	▓	
81	CAT		▓
82	Flea	▓	
83	Flow	▓	
84	Flush	▓	
85	Fly	▓	
86	Fog	▓	
87	Fool	▓	
88	Fox	▓	
89	CAT		▓
90	Fun	▓	
91	Glad	▓	
92	Golf	▓	
93	CAT		▓
94	Grace	▓	
95	Grave	▓	
96	CAT		▓
97	Ham	▓	
98	CAT		▓
99	Haul	▓	
100	Haze	▓	
		A	B
Subtotals			
Total Scores			

Sentence Processing Tasks

3) Object Manipulation (see Myachykov & Posner, 2005; also Caplan & Waters, 1999, Shankweiler, Crain, Gorrell, & Tuller, 1989)

Materials: Animal models

Initial Baseline

Instructions:
Verbally present the 18 sentences below. For each sentence, place the two or three named animals on the table in front of the patient. Instruct the patient to manipulate objects to demonstrate the events described. Score correct and incorrect responses.

Scoring: **Agent** is in bold.
> 1 = correct selection of agent to perform any action on the other objects so that correct agent-object relationship shown (i.e., picks up agent only to demonstrate action)
> 0 = incorrect (picks up incorrect agent or more than one object simultaneously or no response)

Date Administered: _____

#	Sentence	Score	Score	Score
1	The **horse** is throwing the sheep to the monkey.			
2	The **cat** is finding the dog.			
3	The black bear is given the cat by the **brown bear**.			
4	The **monkey** is carrying the rabbit.			
5	The dog is found by the **cat**.			
6	The elephant is hit by the **monkey**.			
7	The **deer** is chasing the cow.			
8	The **monkey** is hitting the elephant.			
9	The **giraffe** is selling the horse to the rabbit.			
10	The black bear is kissed by the **brown bear**.			

#	Sentence	Score	Score	Score
11	The dog is sold the sheep by the **tiger.**			
12	The black bear is given the pig by the **zebra**.			
13	The **monkey** is throwing the pig to the giraffe.			
14	The cow is chased by the **deer**.			
15	The elephant is fed the cat by the **dog**.			
16	The **brown bear** is kissing the black bear.			
17	The **cow** is feeding the rabbit to the deer.			
18	The rabbit is carried by the **monkey**.			
	Total Score			

Next Steps:

Total Score ≥ 14	Object Manipulation Training Complete.
Total Score < 14	Repeat baseline 2 more times, then proceed to Phase A Treatment Task.

Phase A: Treatment Task

Object Familiarization Instructions: (may skip if patient clearly understood animal names during baseline task) Place animal figures in front of patient and name each aloud to familiarize the patient. Ask the patient to repeat the name of each object. If not all are named correctly, review again and ask patient to repeat names.

Cat	Rabbit	Zebra	Brown Bear	Pig
Dog	Deer	Giraffe	Cow	Black Bear
Sheep	Horse	Monkey	Elephant	Tiger

Treatment Sentences Instructions:
Instruct the patient to manipulate objects to demonstrate the events described. For each sentence, place the two named animals on the table in front of the patient. Present the 20 cues and sentences below verbally. Score correct and incorrect responses. If the patient's object manipulation is incorrect, repeat the sentence while modeling correct manipulation to demonstrate target event. Ask the patient to imitate your model prior to presenting the next sentence.

Scoring:
> 1 = correct selection of agent to perform any action on the other objects so that correct agent-object relationship shown (i.e., picks up agent only to demonstrate action)
> 0 = incorrect (picks up incorrect agent or more than one object simultaneously or no response)
>
> Also note any modeling provided and the patient's ability to imitate.

See following page for stimuli.

Treatment Session *(circle one):*   Session 1   Session 2   Session 3

Date Administered: _____

Sentence	Score	Model?	Score	Model?	Score	Model?	Score	Model?
Cue: The monkey The cow is hit by the **monkey**.								
Cue: The cow The horse is pushed by the **cow**.								
Cue: The zebra The tiger is moved by the **zebra.**								
Cue: The zebra The **zebra** is moving the tiger.								
Cue: The monkey The **monkey** is carrying the pig.								
Cue: The dog The **dog** is riding the deer.								
Cue: The zebra The **zebra** is kicking the brown bear.								
Cue: The dog The deer is ridden by the **dog**.								
Cue: The monkey The **monkey** is hitting the cow.								
Cue: The monkey The pig is carried by the **monkey**.								
Cue: The elephant The **elephant** is smelling the sheep.								
Cue: The rabbit The giraffe is chased by the r**abbit**.								
Cue: The black bear The **black bear** is finding the brown bear.								
Cue: The cat The **cat** is kissing the rabbit.								
Cue: The cow The **cow** is pushing the horse.								
Cue: The zebra The brown bear is kicked by the **zebra**.								

Sentence	Score	Model?	Score	Model?	Score	Model?	Score	Model?
Cue: The black bear The brown bear is found by the **black bear**.								
Cue: The cat The rabbit is kissed by the **cat**.								
Cue: The rabbit The **rabbit** is chasing the giraffe.								
Cue: The elephant The sheep is smelled by the **elephant**.								
Total Score								

Next Steps:

Total Score ≥ 16	When criterion is met on two consecutive treatment trials, proceed to Phase B of Object Manipulation.
Total Score < 16	Repeat Phase A treatment task during subsequent trial. Object Manipulation task should be treated for a maximum of three sessions total.

Phase B: Treatment Task

Object Familiarization Instructions: (may skip if patient clearly understood animal names during previous task) Place animal figures in front of patient and name each aloud to familiarize the patient. Ask the patient to repeat the name of each object. If not all are named correctly, review again and ask patient to repeat names.

Cat	Rabbit	Zebra	Brown Bear	Pig
Dog	Deer	Giraffe	Cow	Black Bear
Sheep	Horse	Monkey	Elephant	Tiger

Treatment Sentences Instructions:
Instruct the patient to manipulate objects to demonstrate the events described. For each sentence, place the three named animals on the table in front of the patient. Present the 16 cues and sentences below verbally. Score correct and incorrect responses. If the patient's object manipulation is incorrect, repeat the sentence while modeling correct manipulation to demonstrate target event. Ask the patient to imitate your model prior to presenting the next sentence.

Scoring:

  1 = correct selection of agent to perform any action on the other objects so that correct agent-object relationship shown (i.e., picks up agent only to demonstrate action)
  0 = incorrect (picks up incorrect agent or more than one object simultaneously or no response)

  Also note any modeling provided and the patient's ability to imitate.

See following page for stimuli.

Treatment Session *(circle one):*   Session 1   Session 2   Session 3

Date Administered: _____

Sentence	Score	Model?	Score	Model?	Score	Model?	Score	Model?
Cue: The brown bear The **brown bear** is giving the zebra to the black bear.								
Cue: The cow The pig is sold the tiger by the **cow**.								
Cue: The deer The **deer** is feeding the pig to the tiger.								
Cue: The brown bear The black bear is given the zebra by the **brown bear**.								
Cue: The monkey The brown bear is thrown the horse by **the monkey**.								
Cue: The rabbit The giraffe is given the sheep by the **rabbit**.								
Cue: The monkey The **monkey** is throwing the horse to the brown bear.								
Cue: The cow The **cow** is selling the tiger to the pig.								
Cue: The monkey The **monkey** is selling the dog to the horse.								
Cue: The rabbit The dog is fed the cat by the **rabbit.**								
Cue: The elephant The **elephant** is throwing the cat to the cow.								
Cue: The rabbit The **rabbit** is feeding the cat to the dog.								
Cue: The elephant The cow is thrown the cat by the **elephant**.								
Cue: The rabbit The **rabbit** is giving the sheep to the giraffe.								

Sentence	Score	Model?	Score	Model?	Score	Model?	Score	Model?
Cue: The monkey The horse is sold the dog by the **monkey**.								
The tiger is fed the pig by the **deer**.								
Total Score								

Next Steps:

Total Score ≥ 12	When criterion is met on two consecutive treatment trials, Object Manipulation Training is complete. See training completion criteria below.
Total Score < 12	Repeat Phase B treatment task during subsequent trial. Object Manipulation task should be treated for a maximum of three sessions total.

Object Manipulation Training Completion Criteria:

- Reach 80% accuracy on Phase B treatment across two consecutive trials.

	Trial 1	Trial 2
Date Achieved		

OR

- Complete three consecutive sessions of Object Manipulation Training

	Session 1	Session 2	Session 3
Date Achieved			
Phase(s) Completed			

Administer probe during following treatment session.

Probe

Instructions:
Verbally present the 18 sentences below. For each sentence, place the two or three named animals on the table in front of the patient. Instruct the patient to manipulate objects to demonstrate the events described. Score correct and incorrect responses.

Scoring: **Agent** is in bold.
> 1 = correct selection of agent to perform any action on the other objects so that correct agent-object relationship shown (i.e., picks up agent only to demonstrate action)
> 0 = incorrect (picks up incorrect agent or more than one object simultaneously or no response)

Date Administered: _____

#	Sentence	Score
1	The **horse** is throwing the sheep to the monkey.	
2	The **cat** is finding the dog.	
3	The black bear is given the cat by the **brown bear**.	
4	The **monkey** is carrying the rabbit.	
5	The dog is found by the **cat**.	
6	The elephant is hit by the **monkey**.	
7	The **deer** is chasing the cow.	
8	The **monkey** is hitting the elephant.	
9	The **giraffe** is selling the horse to the rabbit.	
10	The black bear is kissed by the **brown bear**.	

#	Sentence	Score
11	The dog is sold the sheep by the **tiger.**	
12	The black bear is given the pig by the **zebra**.	
13	The **monkey** is throwing the pig to the giraffe.	
14	The cow is chased by the **deer**.	
15	The elephant is fed the cat by the **dog**.	
16	The **brown bear** is kissing the black bear.	
17	The **cow** is feeding the rabbit to the deer.	
18	The rabbit is carried by the **monkey**.	
	Total Score	

Sentence Processing Tasks

4) Topicalization (see Cutler & Fodor, 1979)

Materials: Large-Print sentences for visual cues

Initial Baseline

Instructions:
Verbally present the following set of 10 sentences without topicalization to the patient, and ask him or her the corresponding comprehension questions. The target response for each question is indicated. Any information that provides essential information should be scored as accurate. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question
        0 = incorrect or no response

Date Administered: _____

#	Sentence & Questions	Target	Score	Score	Score
1	The horse with the dappled coat trotted through the mountain trails.				
	A. Which horse trotted through the trails?	The horse with the dappled coat			
	B. Which trails did the horse trot on?	The mountain trails			
2	The swimmer in the Olympics competed in four freestyle relays.				
	A. Which swimmer competed in the relays?	The swimmer in the Olympics			
	B. Which relays did the swimmer compete in?	Four freestyle relays			
3	The oranges from the citrus grove were picked to make fresh juice.				
	A. Which oranges were picked to make juice?	The oranges from the citrus grove			
	B. Which juice were the oranges picked to make?	The fresh juice			
4	The nurses from the rehab center cared for the recovering patients.				
	A. Which nurses cared for the patients?	The nurses from the rehab center			
	B. Which patients did the nurses care for?	The recovering patients			
5	The professor at the college taught several history classes.				
	A. Which professor taught several classes?	The professor at the college			
	B. Which classes did the professor teach?	Several history classes			
6	The artist who lives in Atlanta rented an apartment near the city limits.				
	A. Which artist rented the apartment?	The artist who lives in Atlanta			
	B. Which apartment did the artist rent?	The apartment near the city limits			

#	Sentence & Questions	Target	Score	Score	Score
7	The model in the magazine was wearing a floor-length gown.				
	A. Which model was wearing the gown?	The model in the magazine			
	B. Which gown was the model wearing?	A floor-length gown			
8	The pharmacy in the supermarket offered the lowest prices in town.				
	A. Which pharmacy offered the prices?	The pharmacy in the supermarket			
	B. Which prices did the pharmacy offer?	The lowest prices in town			
9	The waitress at the diner served freshly brewed coffee.				
	A. Which waitress served the coffee?	The waitress at the diner			
	B. Which coffee did the waitress serve?	Freshly brewed coffee			
10	The group of dancers negotiated with the Broadway agent.				
	A. Which group negotiated with the agent?	The dancers			
	B. Which agent was it that the group negotiated with?	The Broadway agent			
		Total Score			

Next Steps:

Total Score ≥ 16	Discontinue Topicalization training. Proceed to Anaphora task of L-SAT protocol.
Total Score < 16	Administer baseline task 2 more times, then proceed to Treatment Task for this training.

Treatment Task

General Instructions:
 Instruct patient to listen to the following set of 20 sentences and pay careful attention to comprehending them in order to answer associated comprehension questions.

Question A Instructions:
Verbally present one of the topicalized sentences and ask the accompanying comprehension question that is directed to embedded topic (Question A). The target response for each question is indicated. Any information that provides essential information should be scored as accurate. Score correct and incorrect responses.

Question A Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Question B Instructions:
Ask the comprehension question that is directed to information in the later part of the sentence (question B). The target response for each question is indicated. Any information that provides essential information should be scored as accurate. Score correct and incorrect responses. Provide feedback on accuracy of the response and model correct response as needed. DO NOT provide cues.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
          Also note the level of cueing provided for Question A and whether a model was provided following a response to Question B.

See following page for stimuli.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Questions	Target	A Score	Level of Cueing Provided	B Score	Model?
1	Candid, the story was, that the reporter with the daily newspaper was responsible for.					
	A. Which story was the reporter responsible for?	The candid story				
	B. Which reporter was responsible for the story?	The reporter with the daily newspaper				
2	Blue, the hat was, that the man on the corner was wearing.					
	A. Which hat was the man wearing?	The blue hat				
	B. Which man was wearing the hat?	The man on the corner				
3	Californian, the senator was, who proposed the motion to dismiss.					
	A. Which senator proposed the motion?	The Californian senator				
	B. Which motion was proposed by the senator?	The motion to dismiss				
4	Angry, the author was, who refused to go the publisher's party.					
	A. Which author refused to go the party?	The angry author				
	B. Which party did the author refuse to go to?	The publisher's party				
5	Dirty, the water was, that ruined the flavor of the coffee.					
	A. Which water ruined the flavor?	The dirty water				
	B. Which flavor was ruined by the water?	The coffee's flavor				

Topicalization   38

#	Sentence & Questions	Target	A Score	Level of Cueing Provided	B Score	Model?
6	New, the delivery procedure was, that the association of consumers objected to.					
	A. Which procedure did the association object to?	The new procedure				
	B. Which association objected to the procedure?	The consumer association				
7	Defective, the telephone was, that made the voice of the caller hard to hear.					
	A. Which telephone was the voice hard to hear on?	The defective telephone				
	B. Which voice was hard to hear on the telephone?	The caller's voice				
8	Common, the viewers were, who were interested in the program about Britain.					
	A. Which viewers did the program interest?	The common viewers				
	B. Which program interested the viewers?	The program about Britain				
9	Zealous, the janitor was, who joined the custodian's union at the ballpark.					
	A. Which janitor joined the union?	The zealous janitor				
	B. Which union did the janitor join?	The custodian's union				
10	Expensive, the candy was, that was sold at the specialty store.					
	A. Which candy was sold at the store?	The expensive candy				
	B. Which store was the candy sold at?	The specialty store				

Topicalization

#	Sentence & Questions	Target	A Score	Level of Cueing Provided	B Score	Model?
11	Unpaved, the road was, that washed out during the December rains.					
	A. Which road washed out in the rains?	The unpaved road				
	B. Which rains washed out the road?	The December rains				
12	Irresponsible, the boy was, who got suspended during the college meeting.					
	A. Which boy got suspended during the meeting?	The irresponsible boy				
	B. At which meeting was the boy suspended?	The college meeting				
13	Vigilant, the lookout was, who saw the driver's escape.					
	A. Which lookout was it that saw the escape?	The vigilant lookout				
	B. Whose escape was it that the lookout saw?	The driver's escape				
14	Dangerous, the situation was, that the brave firefighter discovered.					
	A. Which situation was it that the firefighter discovered?	The dangerous situation				
	B. Which firefighter discovered the situation?	The brave firefighter				
15	Accurate, the article was, that appeared in the national magazine.					
	A. Which article appeared in the magazine?	The accurate article				
	B. Which magazine did the article appear in?	The national magazine				
16	Loud, the parade was, that went through town on St. Patrick's Day.					
	A. Which parade went through town?	The loud parade				
	B. Which day did the parade take place on?	St. Patrick's Day				

#	Sentence & Questions	Target	A Score	Level of Cueing Provided	B Score	Model?
17	Small, the town was, that was hit by the devastating tornadoes.					
	A. Which town was hit by tornadoes?	The small town				
	B. Which tornadoes hit the town?	The devastating tornadoes				
18	Bumper to bumper, the traffic was, that blocked the two-lane highway.					
	A. Which traffic blocked the highway?	Bumper to bumper traffic				
	B. Which highway was blocked by traffic?	The two-lane highway				
19	Exciting, the tour was, that the tourists took through the northeastern city.					
	A. Which tour did the tourists take?	The exciting tour				
	B. Which city did the tourists tour?	The northeastern city				
20	Crowded, the flight was, that arrived at the Omaha airport.					
	A. Which flight arrived at the airport?	The crowded flight				
	B. Which airport did the flight arrive at?	The Omaha airport				
	A Score			**B Score**		

Total Score (A+B) =

Next Steps:

Total Score ≥ 32	When criterion is met on two consecutive treatment trials, Topicalization Training is complete. See training completion criteria. Administer Probe at start of subsequent treatment session.
Total Score < 32	Repeat treatment task during subsequent trial. Topicalization Task should be treated for a maximum of three sessions total.

Topicalization Training Completion Criteria:

- Reach 80% accuracy on treatment task across two consecutive trials.

	Trial 1	Trial 2
Date Achieved		

OR

- Complete three consecutive sessions of Topicalization Training

	Session 1	Session 2	Session 3
Date Achieved			

Administer probe during next treatment session.

Probe

Instructions:
Verbally present the following set of 10 sentences without topicalization to the patient, and ask him or her the corresponding comprehension questions. The target response for each question is indicated. Any information that provides essential information should be scored as accurate. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question
 0 = incorrect or no response

Date Administered: _____

#	Sentence & Questions	Target	Score
1	The horse with the dappled coat trotted through the mountain trails.		
	A. Which horse trotted through the trails?	The horse with the dappled coat	
	B. Which trails did the horse trot on?	The mountain trails	
2	The swimmer in the Olympics competed in four freestyle relays.		
	A. Which swimmer competed in the relays?	The swimmer in the Olympics	
	B. Which relays did the swimmer compete in?	Four freestyle relays	
3	The oranges from the citrus grove were picked to make fresh juice.		
	A. Which oranges were picked to make juice?	The oranges from the citrus grove	
	B. Which juice were the oranges picked to make?	The fresh juice	
4	The nurses from the rehab center cared for the recovering patients.		
	A. Which nurses cared for the patients?	The nurses from the rehab center	
	B. Which patients did the nurses care for?	The recovering patients	
5	The professor at the college taught several history classes.		
	A. Which professor taught several classes?	The professor at the college	
	B. Which classes did the professor teach?	Several history classes	
6	The artist who lives in Atlanta rented an apartment near the city limits.		
	A. Which artist rented the apartment?	The artist who lives in Atlanta	
	B. Which apartment did the artist rent?	The apartment near the city limits	
7	The model in the magazine was wearing a floor-length gown.		
	A. Which model was wearing the gown?	The model in the magazine	
	B. Which gown was the model wearing?	A floor-length gown	
8	The pharmacy in the supermarket offered the lowest prices in town.		
	A. Which pharmacy offered the prices?	The pharmacy in the supermarket	

#	Sentence & Questions	Target	Score
	B. Which prices did the pharmacy offer?	The lowest prices in town	
9	The waitress at the diner served freshly brewed coffee.		
	A. Which waitress served the coffee?	The waitress at the diner	
	B. Which coffee did the waitress serve?	Freshly brewed coffee	
10	The children at the daycare center played with the colored blocks.		
	A. Which children played with the blocks?	The children at the daycare	
	B. Which blocks did the children play with?	The colored blocks	
		Total Score	

Sentence Processing Tasks

5) Anaphora (see Myachykov & Posner, 2005)

Materials: Large-text sentences for visual cues

Initial Baseline

Instructions:
Verbally present the following set of 30 sentences to the patient, and ask him or her the corresponding comprehension questions. Working memory load is determined by the distance between the anaphoric pronoun and its antecedent. The target response for each question is indicated. Any answer that provides the essential information should be scored as accurate. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response

Date Administered: _____

Load	#	Sentence & Question	Target	Score	Score	Score
Low	1	Mike laughed while he watched the TV show.				
		Who watched the TV show?	Mike			
High	2	The girls who visited Grandma at the Jersey Shore told the ticket agent that they left the luggage with her.				
		Who did the girls leave the luggage with?	Grandma			
Low	3	The couple strolled through the park where they met.				
		Who met at the park?	The couple			
Medium	4	Lily bought Caroline a present from the mall because she turned 30 years old this weekend.				
		Who turned 30 years old this weekend?	Caroline			
Medium	5	Nora believed Sam immediately when he explained the reason for the missing money.				
		Who explained the reason for the missing money?	Sam			
Medium	6	My sister baked Tom two dozen cookies because he helped out with house repairs.				
		Who helped out with house repairs?	Tom			
Low	7	Kerry complained that she wasn't given enough time to complete the assignment.				
		Who wasn't given enough time to complete the assignment?	Kerry			
Medium	8	Pete congratulated Lucy at the gymnasium after she won the district swim meet.				
		Who won the district swim meet?	Lucy			
Low	9	Marco apologized although he maintained his innocence.				
		Who maintained his innocence?	Marco			

Load	#	Sentence & Question	Target	Score	Score	Score
Medium	10	The girls sat with Mrs. Smith on the blue sofa because she was tired from traveling.				
		Who was tired from traveling?	Mrs. Smith			
High	11	The driver who drove Mr. Blake to the conference told the valet that he traveled 300 miles with him.				
		Who did the driver travel 300 miles with?	Mr. Blake			
Low	12	The little girl hoped that she would get presents from Santa Claus.				
		Who hoped she would get presents from Santa Claus?	The (little) girl			
Medium	13	Mr. York promoted Inez after the holiday season because she was the best worker on the line.				
		Who was the best worker on the line?	Inez			
Medium	14	Alice called Mrs. Brown before the potluck because she had a question about a recipe.				
		Who had a question about the recipe?	Alice			
High	15	The model who impressed the magazine editor by arriving on time to the shoot told Sheila how she appreciated her praise.				
		Whose praise did the model appreciate?	The (magazine) editor's			
Medium	16	Tony told Helen to turn off the television until he finished working on the project.				
		Who finished working on the project?	Tony			
Low	17	The dog growled when he saw the stranger enter the yard.				
		Who saw the stranger enter the yard?	The dog			
High	18	The maid who was employed by Rita to clean several houses told the handyman how much she hates working for her.				
		Who does the maid hate working for?	Rita			
High	19	The chef who was reviewed by Mr. Hall from the New York Times told the hostess that he was nervous to read his article.				
		Whose article was the chef nervous to read?	Mr. Hall's			
Low	20	The baby crawled before he was able to walk.				
		Who was able to walk?	The baby			
Medium	21	The witness informed the reporter for the daily newspaper that he saw the accident on the highway.				
		Who saw the accident on the highway?	The witness			
High	22	The worker who covered for Mark during the snowstorm told the woman that he borrowed the tools from him.				
		Who did the worker borrow the tools from?	Mark			
High	23	The broker who met Leo in the bank lobby told the manager how he sealed the deal with him.				
		Who did the broker seal the deal with?	Leo			

Anaphora

Load	#	Sentence & Question	Target	Score	Score	Score
Low	24	Mom worried when she didn't receive a call from James.				
		Who didn't receive a call from James?	Mom			
High	25	The hostess who invited Mrs. Martin to the party told John how glad she was that she arrived early.				
		Who was the hostess glad arrived early?	Mrs. Martin			
Low	26	The magician disappeared after he clapped his hands three times.				
		Who clapped his hands three times?	The magician			
High	27	The President who employed the assistant for the campaign told Paul that he was planning to fire her.				
		Who was the President planning to fire?	The assistant			
Medium	28	Hector played Jennifer a song on the piano although he preferred the violin.				
		Who preferred the violin?	Hector			
Low	29	Kim smiled when she won the award.				
		Who won the award?	Kim			
High	30	The Olympian who outran Bobby in the final race told the official that he was surprised that he beat him.				
		Who was the Olympian surprised that he beat?	Bobby			
			Total Score			

Next Steps:

Total Score ≥ 24	Anaphora Training Complete.
Total Score < 24	Repeat baseline 2 more times, then proceed to Phase A Treatment Task.

Phase A Treatment Task: Low Load

Instructions:
Instruct patient to listen to the following set of 20 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the corresponding comprehension question. The target response for each question is indicated. Any answer that provides the essential information should be scored as accurate. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
          Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	Jasmine stayed after she finished the meal.			
	Who finished the meal?	Jasmine		
2	The businessman departed when he arrived at the Federal Building.			
	Who arrived at the Federal Building?	The businessman		
3	Kelly flinched when she stubbed her toe on the couch.			
	Who stubbed her toe on the couch?	Kelly		
4	Patrick thought before he purchased the expensive car.			
	Who purchased the expensive car?	Patrick		
5	Laura cleaned after she tracked mud through the house.			
	Who tracked mud through the house?	Laura		
6	Dennis danced although he twisted his ankle last week.			
	Who twisted his ankle last week?	Dennis		
7	The head chef grimaced when he tasted the salty pasta dish.			
	Who tasted the salty pasta dish?	The head chef		
8	My aunt visited before she left on the Caribbean cruise.			
	Who left on the Caribbean cruise?	(Your) aunt		
#	Sentence & Question	Target	Score	Cueing Provided

9	Rebecca stood while she conducted the concert.			
	Who conducted the concert?	Rebecca		
10	Mr. Moore drove because he had the fastest car.			
	Who had the fastest car?	Mr. Moore		
11	Kevin left after he found the envelope.			
	Who found the envelope?	Kevin		
12	Mary laughed while she watched the movie.			
	Who watched the movie?	Mary		
13	The children played until they were called in for dinner.			
	Who was called in for dinner?	The children		
14	John yelled because he was angry.			
	Who was angry?	John		
15	The woman cried because she lost the ring.			
	Who lost the ring?	The woman		
16	Julie ate because she was hungry.			
	Who was hungry?	Julie		
17	Ben cheered after he scored the touchdown.			
	Who scored the touchdown?	Ben		
18	The girls talked before they went to class.			
	Who went to class?	The girls		
19	Chris celebrated after he won the race.			
	Who won the race?	Chris		
20	Sarah worked while she talked on the phone.			
	Who talked on the phone?	Sarah		
		Total Score		

Next Steps:

Total Score ≥ 16	When criterion is met on two consecutive treatment trials, proceed to Phase B of Anaphora.
Total Score < 16	Repeat Phase A treatment task during subsequent trial. Anaphora task should be treated for a maximum of three sessions total.

Phase B Treatment Task: Medium Load

Instructions:
Instruct patient to listen to the following set of 20 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the corresponding comprehension question. The target response for each question is indicated. Any answer that provides the essential information should be scored as accurate. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
        Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	Tim argued with Kelly during the movie because she forgot to buy popcorn.			
	Who forgot to buy popcorn?	Kelly		
2	The agent sold Jake a vacation home in Colorado since he enjoys skiing in the mountains.			
	Who enjoys skiing in the mountains?	Jake		
3	Jessie made the children dinner after the piano lesson because they were hungry.			
	Who was hungry?	The children		
4	The doctor told Angie during her appointment that she should remember to take the medicine every day.			
	Who should remember to take the medicine every day?	Angie		
5	Claire confronted Sam at the party about the email he sent last week.			
	Who sent the email last week?	Sam		
6	Maria pushed the baby around the block in the stroller because she wouldn't stop crying.			
	Who wouldn't stop crying?	The baby		
7	Rick gave Wendy money after the meeting for the gift she bought three days ago.			
	Who bought the gift three days ago?	Wendy		
8	Kara called Jason at his office about the news he was going to share.			

Anaphora   50

#	Sentence & Question	Target	Score	Cueing Provided
	Who was going to share the news?	Jason		
9	The clerk charged Tracy at the register for the dress she was going to buy.			
	Who was going to buy the dress?	Tracy		
10	The minister blessed Marilyn with a prayer after she was in the accident.			
	Who was in the accident?	Marilyn		
11	Mary told John during the party about the woman he was going to meet.			
	Who was going to meet the woman?	John		
12	Kate gave Nick a key in January after he moved into the apartment.			
	Who moved into the apartment?	Nick		
13	The teacher scolded Jamie in front of the class because he forgot his homework.			
	Who forgot his homework?	Jamie		
14	The dog chased the man out of the yard when he walked through the gate.			
	Who walked through the gate?	The man		
15	Megan discussed with Dave over lunch the budget he presented at the meeting.			
	Who presented at the meeting?	Dave		
16	Dad congratulated Zach after the game because he scored the winning goal.			
	Who scored the winning goal?	Zach		
17	Paul bought Lucy a necklace for Christmas before she moved away to London.			
	Who moved away to London?	Lucy		
18	Tom asked Hannah during the interview about the movie she was planning to direct.			
	Who was planning to direct the movie?	Hannah		
19	Mom drove Patrick to the airport because he wanted to catch the 5:00 flight.			
	Who wanted to catch the 5:00 flight?	Patrick		
20	Mr. Miller hired Julie after her graduation when she was looking for a job.			
	Who was looking for a job?	Julie		
	Total Score			

Next Steps:

Total Score ≥ 16	When criterion is met on two consecutive treatment trials, proceed to Phase C of Anaphora.
Total Score < 16	Repeat Phase B treatment task during subsequent trial. Anaphora task should be treated for a maximum of three sessions total.

Phase C Treatment Task: High Load

Instructions:
Instruct patient to listen to the following set of 20 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the corresponding comprehension question. The target response for each question is indicated. Any answer that provides the essential information should be scored as accurate. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
          Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	The manager who questioned the teller from the local bank branch told the policeman how he suspected her of fraud.			
	Who did the manager suspect of fraud?	The teller		
2	The repairman who angered the customer during the service call told the HR rep that he had somehow offended him.			
	Who did the repairman offend?	The customer		
3	The boxer who injured Lee in the qualifying match told the referee that he did not mean to hurt him.			
	Who did the boxer not mean to hurt?	Lee		
4	The doctor who cured Frank of the disease told the nurse that he needed him to pay his bill.			
	Who did the doctor need to pay his bill?	Frank		
5	The translator who accompanied the ambassador from France told Peter that she would attend the meeting with him.			
	Who would the translator attend the meeting with?	Peter		
6	The judge who heard the prosecutor's closing arguments told the defendant that he decided to convict him.			
	Who did the judge decide to convict?	The defendant		

#	Sentence & Question	Target	Score	Cueing Provided
7	The tourist who photographed a friend in front of the castle told the tour guide that he has known her for years.			
	Who has the tourist known for years?	A friend		
8	The lookout who spotted the pirate from the crow's nest told the captain that he thought the ship would soon be under attack by him.			
	Who did the lookout think would attack the ship?	The pirate		
9	The editor who encouraged the author to choose a new title told the publisher that she would help him make the revision.			
	Who will the editor help make the revision?	The author		
10	The cameraman who filmed the President making the speech told the woman that he had previously met him during a press conference.			
	Who did the cameraman previously meet during a press conference?	The President		
11	The mailman who delivered Sherry a package from Australia told a neighbor how unfriendly he found her to be.			
	Who did the mailman find to be unfriendly?	Sherry		
12	The waitress who poured John a cup of coffee told the manager that she received a large tip from him.			
	Who did the waitress receive a large tip from?	John		
13	The millionaire who hired a personal assistant to oversee household errands told a friend that he paid her $600 per week.			
	Who did the millionaire pay $600 per week?	A personal assistant		
14	The pilot who flew Megan in the private plane told the gate agent that he thought she was traveling alone.			
	Who did the pilot think was traveling alone?	Megan		
15	The chef who fired the waiter after the dinner rush told the restaurant owner that he couldn't bear to work with him any longer.			
	Who couldn't the chef bear to work with any longer?	The waiter		
16	The soldier who fought with Thomas in World War II told Linda that he considered him to be a loyal friend.			
	Who did the soldier consider to be a loyal friend?	Thomas		
17	The conductor who praised the violinist in the Philadelphia Symphony Orchestra told Phillip how he was impressed with her talent.			
	Whose talent was the conductor impressed with?	The violinist		
18	The fireman who saved Jill from the burning building told the reporter that he found her trapped on the fifth floor.			

#	Sentence & Question	Target	Score	Cueing Provided
	Who did the fireman find trapped on the fifth floor?	Jill		
19	The girl who was suspended by Mr. Reed at the disciplinary hearing told Nathan how upset she was by his decision.			
	Whose decision upset the girl?	Mr. Reed		
20	The man who pickpocketed Mrs. Wallace at the shopping mall told the security guard that he saw her as an easy target.			
	Who did the man see as an easy target?	Mrs. Wallace		
		Total Score		

Next Steps:

Total Score ≥ 16	When criterion is met on two consecutive treatment trials, Anaphora Training is complete. See training completion criteria. Administer Probe at start of subsequent treatment session.
Total Score < 16	Repeat Phase C treatment task during subsequent trial. Anaphora task should be treated for a maximum of three sessions total.

Anaphora Training Completion Criteria:

- Reach 80% accuracy on Phase C treatment across two consecutive trials.

	Trial 1	Trial 2
Date Achieved		

OR

- Complete three consecutive sessions of Anaphora Training

	Session 1	Session 2	Session 3
Date Achieved			
Phase(s) Completed			

Administer probe during next treatment session.

Probe Task

Instructions:
Verbally present the following set of 30 sentences to the patient, and ask him or her the corresponding comprehension questions. Working memory load is determined by the distance between the anaphoric pronoun and its antecedent. The target response for each question is indicated. Any answer that provides the essential information should be scored as accurate. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response

Date Administered: _____

Load	#	Sentence & Question	Target	Score
Low	1	Mike laughed while he watched the TV show.		
		Who watched the TV show?	Mike	
High	2	The girls who visited Grandma at the Jersey Shore told the ticket agent that they left the luggage with her.		
		Who did the girls leave the luggage with?	Grandma	
Low	3	The couple strolled through the park where they met.		
		Who met at the park?	The couple	
Medium	4	Lily bought Caroline a present from the mall because she turned 30 years old this weekend.		
		Who turned 30 years old this weekend?	Caroline	
Medium	5	Nora believed Sam immediately when he explained the reason for the missing money.		
		Who explained the reason for the missing money?	Sam	
Medium	6	My sister baked Tom two dozen cookies because he helped out with house repairs.		
		Who helped out with house repairs?	Tom	
Low	7	Kerry complained that she wasn't given enough time to complete the assignment.		
		Who wasn't given enough time to complete the assignment?	Kerry	
Medium	8	Pete congratulated Lucy at the gymnasium after she won the district swim meet.		
		Who won the district swim meet?	Lucy	
Low	9	Marco apologized although he maintained his innocence.		
		Who maintained his innocence?	Marco	
Medium	10	The girls sat with Mrs. Smith on the blue sofa because she was tired from traveling.		
		Who was tired from traveling?	Mrs. Smith	
High	11	The driver who drove Mr. Blake to the conference told the valet that he traveled 300 miles with him.		
		Who did the driver travel 300 miles with?	Mr. Blake	
Low	12	The little girl hoped that she would get presents from Santa Claus.		
		Who hoped she would get presents from Santa Claus?	The (little) girl	

Anaphora   56

Load	#	Sentence & Question	Target	Score
Medium	13	Mr. York promoted Inez after the holiday season because she was the best worker on the line.		
		Who was the best worker on the line?	Inez	
Medium	14	Alice called Mrs. Brown before the potluck because she had a question about a recipe.		
		Who had a question about the recipe?	Alice	
High	15	The model who impressed the magazine editor by arriving on time to the shoot told Sheila how she appreciated her praise.		
		Whose praise did the model appreciate?	The (magazine) editor's	
Medium	16	Tony told Helen to turn off the television until he finished working on the project.		
		Who finished working on the project?	Tony	
Low	17	The dog growled when he saw the stranger enter the yard.		
		Who saw the stranger enter the yard?	The dog	
High	18	The maid who was employed by Rita to clean several houses told the handyman how much she hates working for her.		
		Who does the maid hate working for?	Rita	
High	19	The chef who was reviewed by Mr. Hall from the New York Times told the hostess that he was nervous to read his article.		
		Whose article was the chef nervous to read?	Mr. Hall's	
Low	20	The baby crawled before he was able to walk.		
		Who was able to walk?	The baby	
Medium	21	The witness informed the reporter for the daily newspaper that he saw the accident on the highway.		
		Who saw the accident on the highway?	The witness	
High	22	The worker who covered for Mark during the snowstorm told the woman that he borrowed the tools from him.		
		Who did the worker borrow the tools from?	Mark	
High	23	The broker who met Leo in the bank lobby told the manager how he sealed the deal with him.		
		Who did the broker seal the deal with?	Leo	
Low	24	Mom worried when she didn't receive a call from James.		
		Who didn't receive a call from James?	Mom	
High	25	The hostess who invited Mrs. Martin to the party told John how glad she was that she arrived early.		
		Who was the hostess glad arrived early?	Mrs. Martin	
Low	26	The magician disappeared after he clapped his hands three times.		
		Who clapped his hands three times?	The magician	
High	27	The President who employed the assistant for the campaign told Paul that he was planning to fire her.		
		Who was the President planning to fire?	The assistant	

Anaphora

Load	#	Sentence & Question	Target	Score
Medium	28	Hector played Jennifer a song on the piano although he preferred the violin.		
		Who preferred the violin?	Hector	
Low	29	Kim smiled when she won the award.		
		Who won the award?	Kim	
High	30	The Olympian who outran Bobby in the final race told the official that he was surprised that he beat him.		
		Who was the Olympian surprised that he beat?	Bobby	
			Total Score	

Sentence Processing Tasks

6) Nominal Grounding (see Langacker, 2008)

Materials: Large-print sentences for visual cues

Initial Baseline

Instructions:
Verbally present the following set of 18 sentences to the patient, and ask him or her to respond yes or no to the corresponding comprehension questions. Sentences use nominal grounding elements (i.e., a, the, this, that, each, every, some, any, no) to direct listener's attention to the sentence referent with regard to speaker, hearer, and the immediate circumstances. The target response for each question is indicated. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response

Date Administered: _____

#	Sentence & Question	Target	Score	Score	Score
1	The hotel guest in Room 1143 submitted a complaint.				
	Do we know which complaint the hotel guest submitted?	No			
2	This hailstorm is destroying those houses.				
	Are the houses close at hand?	No			
3	These parking spaces are reserved for those dignitaries.				
	Are the parking spaces close at hand?	Yes			
4	These paintings were purchased by those collectors.				
	Are the paintings close at hand?	Yes			
5	A TV anchor from Channel 5 broke the news story.				
	Do we know which TV anchor broke the news story?	No			
6	Every bottle of water is empty, but there is some lemonade in the pitcher.				
	Is there any water left to drink?	No			
7	Many of the workers are eating lunch, but most of the managers have left the cafeteria.				
	Are any of the managers in the cafeteria?	Yes			
8	A red car parked on the street belongs to the neighbor.				
	Do we know which red car belongs to the neighbor?	No			
9	Every tourist on the trip went to the museum, but only some went to the beach.				
	Did all of the tourists go to the beach?	No			
10	Those diners are eating that pizza.				
	Is the pizza close at hand?	No			

#	Sentence & Question	Target	Score	Score	Score
11	All of the books on the table are for sale, but some are missing pages.				
	Are all of the books missing pages?	No			
12	The boy reading comics fought with a friend.				
	Do we know which boy fought with a friend?	Yes			
13	Most of the strawberries were picked on Monday, but some of the apples were picked on Tuesday.				
	Did any of the strawberries get picked on Monday?	Yes			
14	The secretary sitting at the desk is writing an important letter.				
	Do we know which secretary is writing an important letter?	Yes			
15	That boy is climbing that ladder.				
	Is the ladder close at hand?	No			
16	Every child in the line will be entered in the raffle, but all adults are ineligible.				
	Are any of the children entered in the raffle?	Yes			
17	A motorcycle in the garage belongs to the mechanic.				
	Do we know which mechanic a motorcycle belongs to?	Yes			
18	This song was written for that actress.				
	Is the song close at hand?	Yes			
		Total Score			

Next Steps:

Total Score ≥ 14	Nominal Grounding Training Complete.
Total Score < 14	Repeat baseline 2 more times, then proceed to Phase A Treatment Task.

Phase A Treatment Task: Articles

Instructions:
Instruct the patient to listen to the following set of 20 sentences and to pay careful attention to them. Verbally present each sentence, and ask the patient to answer yes or no to the corresponding comprehension questions. The target response for each question is indicated. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
          Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	The girl in the class likes a boy.			
	Do we know which boy the girl likes?	No		
2	The woman in the choir sings a song.			
	Do we know which woman sings a song?	Yes		
3	A man on the bus carried the briefcase.			
	Do we know which man carried the briefcase?	No		
4	The clerk at the store rang up the purchase.			
	Do we know which purchase the clerk rang up?	Yes		
5	Tom found a home for the dog.			
	Do we know which home Tom found?	No		
6	The mayor of the city rode to the park.			
	Do we know which park the mayor rode to?	Yes		
7	The zookeeper fed a group of monkeys.			
	Do we know which group of monkeys the zookeeper fed?	No		
8	A trusted friend gave the advice.			
	Do we know which friend gave the advice?	No		
9	The milk we bought is in the refrigerator.			
	Do we know which refrigerator the milk is in?	Yes		
10	A rabbit with a white tail is living in the garden.			
	Do we know which garden the rabbit is living in?	Yes		
11	The report I finished yesterday is on the desk.			
	Do we know which report is on the desk?	Yes		

#	Sentence & Question	Target	Score	Cueing Provided
12	A phone is ringing in the office.			
	Do we know which office a phone is ringing in?	Yes		
13	The new job Tony applied for requires a writing sample.			
	Do we know which writing sample the new job requires?	No		
14	A movie I watched yesterday had a surprise ending.			
	Do we know which movie had a surprise ending?	No		
15	The potatoes Inez prepared are in a serving dish.			
	Do we know which potatoes are in a serving dish?	Yes		
16	The document in the file summarizes the campaign meeting.			
	Do we know which document summarizes the campaign meeting?	Yes		
17	The doctor from the hospital read a positive test result.			
	Do we know which positive test result was read by the doctor?	No		
18	An apple from the bowl was eaten by the boy.			
	Do we know which apple was eaten by the boy?	No		
19	The lamp with the blue lampshade is from a thrift store.			
	Do we know which lamp is from a thrift store?	Yes		
20	The house on my block is selling for a high price.			
	Do we know which high price the house is selling for?	No		
	Total Score			

Next Steps:

Total Score ≥ 16	When criterion is met on two consecutive treatment trials, proceed to Phase B of Nominal Grounding.
Total Score < 16	Repeat Phase A treatment task during subsequent trial. Nominal Grounding task should be treated for a maximum of three sessions total.

Phase B Treatment Task: Demonstratives

Instructions:
Instruct the patient to listen to the following set of 20 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the patient to answer yes or no to the corresponding comprehension questions. The target response for each question is indicated. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
       Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	This evidence should satisfy those detectives.			
	Are the detectives close at hand?	No		
2	These shoes should fit those children.			
	Are the children close at hand?	No		
3	This key is smaller than this lock.			
	Is the key close at hand?	Yes		
4	That car won't fit into that parking space.			
	Is the parking space close at hand?	No		
5	Those dishes belong in these cabinets.			
	Are the dishes close at hand?	No		
6	Those papers should be placed in this file.			
	Is the file close at hand?	Yes		
7	This book is more interesting than that movie.			
	Is the book close at hand?	Yes		
8	These paint samples will match that couch.			
	Are the paint samples close at hand?	Yes		
9	These letters should be sorted into those mailboxes.			
	Are the letters close at hand?	Yes		
10	That baseball player uses this glove.			
	Is the baseball player close at hand?	No		

#	Sentence & Question	Target	Score	Cueing Provided
11	Those giraffes eat the leaves off those trees.			
	Are the trees close at hand?	No		
12	This artist created these paintings.			
	Are the paintings close at hand?	Yes		
13	These photographs came from that album.			
	Are the photographs close at hand?	Yes		
14	Those doctors work at that hospital.			
	Is the hospital close at hand?	No		
15	These flowers need to be watered with that watering can.			
	Are the flowers close at hand?	Yes		
16	This prize was given to that runner.			
	Is the runner close at hand?	No		
17	This party was hosted by those women.			
	Are the women close at hand?	No		
18	Those boats are anchored in that lake.			
	Are the boats close at hand?	No		
19	These agents sell houses in this neighborhood.			
	Is the neighborhood close at hand?	Yes		
20	These tickets will provide access to this concert.			
	Are the tickets close at hand?	Yes		
	Total Score			

Next Steps:

Total Score ≥ 16	When criterion is met on two consecutive treatment trials, proceed to Phase C of Nominal Grounding.
Total Score < 16	Repeat Phase B treatment task during subsequent trial. Nominal Grounding task should be treated for a maximum of three sessions total.

Phase C Treatment Task: Qualifiers

Instructions:
Instruct the patient to listen to the following set of 20 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the patient to answer yes or no to the corresponding comprehension questions. The target response for each question is indicated. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
           Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	Every player is part of the team, but some receive more playing time.			
	Do all players receive equal amounts of playing time?	No		
2	All of the guests enjoyed the party, but some guests left early.			
	Did any of the guests enjoy the party?	Yes		
3	Most of the tables are reserved, but some are available for seating.			
	Are any of the tables available for seating?	Yes		
4	All of the dresses are silk, but each has a different design.			
	Do all of the dresses have the same design?	No		
5	Some of the gardeners grow vegetables, and some grow flowers.			
	Do any of the gardeners grow vegetables?	Yes		
6	Most of the tickets have been sold, and any that are still available are very expensive.			
	Are any inexpensive tickets still available?	No		
7	Some of the pots are on the stove, but most are in the cabinets.			
	Are any of the pots in the cabinets?	Yes		
8	Each guest will eat a piece of cake but only some will want ice cream.			
	Will all guests eat a piece of cake?	Yes		

#	Sentence & Question	Target	Score	Cueing Provided
9	Every shirt was packed in the suitcase, but all shoes were packed in boxes.			
	Were any shirts packed in the suitcase?	Yes		
10	All of the campers went hiking, and many counselors went swimming.			
	Did any of the campers go hiking?	Yes		
11	Every customer ordered an ice cream cone, but each asked for a different flavor.			
	Did any of the customers order a different flavor?	Yes		
12	Many of the passengers traveled to Canada, but some departed the train in Michigan.			
	Did all of the passengers travel to Canada?	No		
13	All of the teachers taught history, and most were employed by the university.			
	Were all of the teachers employed by the university?	No		
14	Some of the money is in the bank, and some of it is invested in stocks.			
	Is all of the money in the bank?	No		
15	Every piece of jewelry was stolen in the robbery and most of the paintings were stolen as well.			
	Was all of the jewelry stolen in the robbery?	Yes		
16	Every reporter printed the story but each took a different viewpoint.			
	Did any reporters take the same viewpoint?	No		
17	All of the actors performed in the show, and many received a standing ovation.			
	Did all the actors receive a standing ovation?	No		
18	Many of the soldiers marched in the parade, and each wore a blue uniform.			
	Did all of the soldiers march in the parade?	No		
19	Every package was delivered on time, but some arrived badly damaged.			
	Were any packages delivered on time?	Yes		
20	Some leaves are still on the tree, but there aren't any flowers.			
	Are any flowers left on the tree?	No		
	Total Score			

Next Steps:

Total Score ≥ 16	When criterion is met on two consecutive treatment trials, Nominal Grounding Training is complete. See training completion criteria. Administer Probe at start of subsequent treatment session.
Total Score < 16	Repeat Phase C treatment task during subsequent trial. Nominal Grounding task should be treated for a maximum of three sessions total.

Nominal Grounding Training Completion Criteria:
- Reach 80% accuracy on Phase C across two sessions

	Session 1	Session 2
Date Achieved		

OR

- Complete three consecutive sessions of Nominal Grounding Training

	Session 1	Session 2	Session 3
Date Achieved			
Phase(s) Completed			

Administer probe during next treatment session.

Nominal Grounding Probe

Instructions:
Verbally present the following set of 18 sentences to the patient, and ask him or her to respond yes or no to the corresponding comprehension questions. Sentences use nominal grounding elements (i.e., a, the, this, that, each, every, some, any, no) to direct listener's attention to the sentence referent with regard to speaker, hearer, and the immediate circumstances. The target response for each question is indicated. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response

Date Administered: _____

#	Sentence & Question	Target	Score
1	The hotel guest in Room 1143 submitted a complaint.		
	Do we know which complaint the hotel guest submitted?	No	
2	This hailstorm is destroying those houses.		
	Are the houses close at hand?	No	
3	These parking spaces are reserved for those dignitaries.		
	Are the parking spaces close at hand?	Yes	
4	These paintings were purchased by those collectors.		
	Are the paintings close at hand?	Yes	
5	A TV anchor from Channel 5 broke the news story.		
	Do we know which TV anchor broke the news story?	No	
6	Every bottle of water is empty, but there is some lemonade in the pitcher.		
	Is there any water left to drink?	No	
7	Many of the workers are eating lunch, but most of the managers have left the cafeteria.		
	Are any of the managers in the cafeteria?	Yes	
8	A red car parked on the street belongs to the neighbor.		
	Do we know which red car belongs to the neighbor?	No	
9	Every tourist on the trip went to the museum, but only some went to the beach.		
	Did all of the tourists go to the beach?	No	
10	Those diners are eating that pizza.		
	Is the pizza close at hand?	No	

#	Sentence & Question	Target	Score
11	All of the books on the table are for sale, but some are missing pages.		
	Are all of the books missing pages?	No	
12	The boy reading comics fought with a friend.		
	Do we know which boy fought with a friend?	Yes	
13	Most of the strawberries were picked on Monday, but some of the apples were picked on Tuesday.		
	Did any of the strawberries get picked on Monday?	Yes	
14	The secretary sitting at the desk is writing an important letter.		
	Do we know which secretary is writing an important letter?	Yes	
15	That boy is climbing that ladder.		
	Is the ladder close at hand?	No	
16	Every child in the line will be entered in the raffle, but all adults are ineligible.		
	Are any of the children entered in the raffle?	Yes	
17	A motorcycle in the garage belongs to the mechanic.		
	Do we know which mechanic a motorcycle belongs to?	Yes	
18	This song was written for that actress.		
	Is the song close at hand?	Yes	
		Total Score	

Sentence Processing Tasks

7) Clausal Grounding (see Langacker, 2008)

Materials: Large-print sentences for visual cues

Initial Baseline

Instructions:
Verbally present the following set of 16 sentences to the patient, and ask him or her to respond yes or no to the corresponding comprehension questions. Sentences use clausal grounding elements (i.e., -s, -ed, may, should, will) to direct listener's attention to profiled relationship with regard to speaker's current conception of reality. The target response for each question is indicated. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response

Date Administered: _____

#	Sentence & Question	Target	Score	Score	Score
1	The witness may hire a lawyer.				
	Is the witness required to hire a lawyer?	No			
2	The photographer must be paid a deposit before the wedding.				
	Does the photographer require a deposit to be paid before the wedding?	Yes			
3	The dry cleaner can have the shirts ready by tomorrow.				
	Is there a chance the dry cleaner won't have the shirts ready by tomorrow?	Yes			
4	The child brags that he was the best player.				
	Is the child bragging that he is the best player now?	No			
5	Jeff bragged that he was the funniest performer at the talent show.				
	Is Jeff bragging that he is the funniest performer now?	No			
6	The journalist can take a leave of absence.				
	Is the journalist required to take a leave of absence?	No			
7	Mary laughs at the TV show she is watching.				
	Is Mary laughing now at the TV show she is watching?	Yes			
8	Lee affirmed that he is proud of his son.				
	Is Lee affirming that he is proud of his son now?	Yes			
9	Tim admitted that he is given the promotion.				
	Is Tim admitting now that he is given the promotion?	No			
10	The train conductor may transport the freight to San Antonio.				
	Is there a chance the train conductor won't transport the freight to San Antonio?	Yes			
11	The worker told his supervisor that the road was uneven.				
	Is the worker telling his supervisor now that the road is uneven?	No			

#	Sentence & Question	Target	Score	Score	Score
12	The contractor must meet the construction deadline.				
	Is there a chance the contractor won't meet the construction deadline?	No			
13	Mrs. Graham assumes that she was the best baker in town.				
	Is Mrs. Graham assuming now that she is the best baker in town?	Yes			
14	The volunteer will read stories to the children.				
	Is the volunteer required to read stories to the children?	Yes			
15	Joe decides that he prefers the blue car.				
	Is Joe deciding now that he prefers the blue car?	Yes			
16	The pilot will volunteer for the London to New York route.				
	Is there a chance the pilot won't volunteer for the London to New York route?	No			
		Total Score			

Next Steps:

Total Score ≥ 12	Clausal Grounding Training Complete.
Total Score < 12	Repeat baseline 2 more times, then proceed to Phase A Treatment Task.

Phase A Treatment Task: Tense

Instructions:
Instruct the patient to listen to the following set of 16 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the patient to answer yes or no to the corresponding comprehension questions. The target response for each question is indicated. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
          Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	The teacher announces that she was tired.			
	Is the teacher announcing that she is tired now?	No		
2	Julie felt that she was the most charming guest at the party.			
	Is Julie feeling that she is the most charming guest at the party now?	No		
3	The judge claimed that the defendant was in the courtroom.			
	Is the judge claiming now that the defendant is in the courtroom?	No		
4	Sara exclaims that she is excited.			
	Is Sara exclaiming that she is excited now?	Yes		
5	The boy complains that he isn't picked for the team.			
	Is the boy complaining that he isn't picked for the team now?	Yes		
6	Rachel announced that she has the answer.			
	Is Rachel announcing that she has the answer now?	Yes		
7	Carrie explains that she is ill.			
	Is Carrie explaining now that she is ill?	Yes		
8	Nick argues that he was safe at home base.			
	Is Nick arguing now that he is safe at home base?	Yes		

#	Sentence & Question	Target	Score	Cueing Provided
9	The weatherman mentioned that the snow was falling.			
	Is the weatherman mentioning now that the snow is falling?	No		
10	Jane prayed that her friend isn't injured.			
	Is Jane praying now that her friend isn't injured?	No		
11	Carly read that she is the winner of the contest.			
	Is Carly reading that she is the winner of the contest now?	Yes		
12	Maria claimed that she is nervous about the presentation.			
	Is Maria claiming now that she is nervous about the presentation?	No		
13	The girl told her father that she was cooperative.			
	Is the girl telling her father that she is cooperative now?	No		
14	My sister tells me that she is angry.			
	Is my sister telling me that she is angry now?	Yes		
15	Will says that he preferred chocolate ice cream.			
	Is Will saying now that he prefers chocolate ice cream?	Yes		
16	The boy tells his mother that he was defeated in the race.			
	Is the boy telling his mother that he is defeated in the race now?	No		
	Total Score			

Next Steps:

Total Score ≥ 12	When criterion is met on two consecutive treatment trials, proceed to Phase B of Clausal Grounding.
Total Score < 12	Repeat Phase A treatment task during subsequent trial. Clausal Grounding task should be treated for a maximum of three sessions total.

Phase B Treatment Task: Modal Verbs

Instructions:
Instruct the patient to listen to the following set of 16 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the patient to answer yes or no to the corresponding comprehension questions. The target response for each question is indicated. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	The doctor will see patients over the holiday weekend.			
	Is there a chance the doctor won't see patients over the holiday weekend?	No		
2	The activist can block the release of the film.			
	Is there a chance the activist won't block the release of the film?	Yes		
3	Dan will agree to take the promotion.			
	Is Dan required to take the promotion?	Yes		
4	Lindsay may make the appointment for Thursday.			
	Is there a chance Lindsay won't make the appointment for Thursday?	Yes		
5	You must help me shovel the snow for a change.			
	Is there a chance you won't help me with the snow?	No		
6	You must take responsibility for your actions.			
	Are you required to take responsibility for your actions?	Yes		
7	You may agree to make the edits on the manuscript.			
	Is there a chance you won't make edits on the manuscript?	Yes		
8	The editor can veto the book proposal.			
	Is there a chance the editor won't veto the book proposal?	Yes		

#	Sentence & Question	Target	Score	Cueing Provided
9	The family will visit Detroit next week.			
	Is there a chance the family won't visit Detroit next week?	No		
10	The worker can support the union strike.			
	Is the worker required to support the union strike?	No		
11	The nurse may take the patient's blood pressure this morning.			
	Is the nurse required to take the patient's blood pressure this morning?	No		
12	The captain can set sail before midnight.			
	Is the captain required to set sail before midnight?	No		
13	The painting will sell for several thousand dollars at auction.			
	Is the painting required to sell for several thousand dollars at auction?	Yes		
14	The student must pass his final exams.			
	Is there a chance the student won't pass his final exams?	No		
15	The actress may attend the Paris premiere.			
	Is the actress required to attend the Paris premiere?	No		
16	The stylist must listen to her client's request.			
	Is the stylist required to listen to her client's request	Yes		

Total Score

Next Steps:

Total Score ≥ 12	When criterion is met on two consecutive treatment trials, Clausal Grounding Training is complete. See training completion criteria. Administer Probe at start of subsequent treatment session.
Total Score < 12	Repeat Phase B treatment task during subsequent trial. Clausal Grounding task should be treated for a maximum of three sessions total.

Clausal Grounding Training Completion Criteria:
- Reach 75% accuracy on Phase B across two sessions

	Session 1	Session 2
Date Achieved		

OR
- Complete three consecutive sessions of Clausal Grounding Training

	Session 1	Session 2	Session 3
Date Achieved			
Phase(s) Completed			

Administer probe during next treatment session.

Clausal Grounding Probe

Instructions:
Verbally present the following set of 16 sentences to the patient, and ask him or her to respond yes or no to the corresponding comprehension questions. Sentences use clausal grounding elements (i.e., -s, -ed, may, should, will) to direct listener's attention to profiled relationship with regard to speaker's current conception of reality. The target response for each question is indicated. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response

Date Administered: _____

#	Sentence & Question	Target	Score
1	The witness may hire a lawyer.		
	Is the witness required to hire a lawyer?	No	
2	The photographer must be paid a deposit before the wedding.		
	Does the photographer require a deposit to be paid before the wedding?	Yes	
3	The dry cleaner can have the shirts ready by tomorrow.		
	Is there a chance the dry cleaner won't have the shirts ready by tomorrow?	Yes	
4	The child brags that he was the best player.		
	Is the child bragging that he is the best player now?	No	
5	Jeff bragged that he was the funniest performer at the talent show.		
	Is Jeff bragging that he is the funniest performer now?	No	
6	The journalist can take a leave of absence.		
	Is the journalist required to take a leave of absence?	No	
7	Mary laughs at the TV show she is watching.		
	Is Mary laughing now at the TV show she is watching?	Yes	
8	Lee affirmed that he is proud of his son.		
	Is Lee affirming that he is proud of his son now?	Yes	
9	Tim admitted that he is given the promotion.		
	Is Tim admitting now that he is given the promotion?	No	
10	The train conductor may transport the freight to San Antonio.		
	Is there a chance the train conductor won't transport the freight to San Antonio?	Yes	
11	The worker told his supervisor that the road was uneven.		
	Is the worker telling his supervisor now that the road is uneven?	No	
12	The contractor must meet the construction deadline.		
	Is there a chance the contractor won't meet the construction deadline?	No	
13	Mrs. Graham assumes that she was the best baker in town.		
	Is Mrs. Graham assuming now that she is the best baker in town?	Yes	
14	The volunteer will read stories to the children.		
	Is the volunteer required to read stories to the children?	Yes	

#	Sentence & Question	Target	Score
15	Joe decides that he prefers the blue car.		
	Is Joe deciding now that he prefers the blue car?	Yes	
16	The pilot will volunteer for the London to New York route.		
	Is there a chance the pilot won't volunteer for the London to New York route?	No	
		Total Score	

Sentence Processing Tasks

8) Windowing (see Talmy, 2001)

Materials: Large-print sentences for visual cues

Initial Baseline

Instructions:
Verbally present the following set of 20 sentences to the patient, and ask him or her to respond to the corresponding comprehension questions. The questions evoke different types of windowing to direct the listener's attention to the core events in the sentences:

Open Path (OP) Windowing: Sentences describe paths of objects that are in motion and have beginning and ending points that are in different locations in space. Questions elicit open path windowing for initial (I), medial (M), and final (F) events in sentences in different orders.

Phase (P) Windowing: Sentences describe an iterating motion event where the beginning and ending points of a path are at the same location in space and form a circuit. Questions elicit phase windowing to direct listener's attention to departure (D) and return (R) phases in counterbalanced orders.

Factuality (F) Windowing: Sentences establish comparison of alternative conceptualizations for the occurrence or nonoccurrence of some referent. Questions elicit factuality windowing for an unrealized positive event (1), an unrealized negative event (2), an event at the opposite end of a continuum of certainty (3), and an overtly counterfactual event (4).

The target response for each question is indicated. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response

Date Administered: _____

#	Type	Sentence & Question	Target Response	Score	Score	Score
1	F4	The farmer would have lost his crop if the frost came early.				
		What happened because the frost did not come early?	The farmer did not lose his crop			
2	OP-IMF	The crate in the aircraft's cargo bay fell out of the plane through the air into the ocean.				
		Where was the crate before it fell?	In the aircraft's cargo bay			
		What did the crate do?	Fell out of the plane			
		Where did the crate go?	(Into) the ocean			
3	P-DR	The car battery continued to die and I kept recharging it.				
		What did the car battery do?	Continued to die			
		What did I do?	Kept recharging the battery			

#	Type	Sentence & Question	Target Response	Score	Score	Score
4	F1	I wasn't in the meeting last week.				
		What would be the opposite of this event?	I was in the meeting last week.			
5	P-RD	The campfire continued to slowly burn the wood and the Boy Scout added more to fuel the flames.				
		What did the Boy Scout do?	Add more wood to fuel the flames			
		What did the campfire do?	Continued to slowly burn the wood			
6	OP-IFM	The fireworks on the Fourth of July shot like lighting from the ground and exploded into the night sky.				
		How did the fireworks shoot?	Like lightning			
		Where did the fireworks explode?	Into the night sky			
		Where did the fireworks shoot from?	From the ground			
7	F3	Lila may have been on stage for the entire performance.				
		We don't know if Lila was on stage for the entire performance. Give a sentence indicating that she was.	Lila was on stage for the entire performance.			
8	P-RD	The wind kept blowing the door open and each time I closed it.				
		What did I do?	I kept closing the door			
		What did the wind do?	Kept blowing the door open			
9	F4	The family would have shopped for presents if they had the time.				
		What happened because the family did not have time?	The family did not shop for presents.			
10	OP-MIF	The water on the stove boiled over the pot into the hot flame and onto the floor.				
		Where did the water boil?	Into the hot flame			
		How did the water boil?	Over the pot			
		Where did the water go?	Onto the floor			
11	P-DR	The pen kept falling off the table and I kept putting it back.				
		What did the pen do?	Kept falling off the table			
		What did I do?	Kept putting the pen back			

#	Type	Sentence & Question	Target Response	Score	Score	Score
12	OP-MFI	The leaf on the oak tree floated lightly like a feather twisting and twirling all the way to the ground.				
		What kind of floating was it?	Twisting and twirling			
		Where did the leaf go?	All the way to the ground			
		How did the leaf float?	Lightly like a feather			
13	F1	George didn't go the concert yesterday.				
		What would be the opposite of this event?	George went to the concert yesterday.			
14	P-DR	Each time I called Mr. Smith on the phone, I was told to call again when he returned.				
		What did I do?	I kept calling Mr. Smith on the phone			
		What was I told?	To call again when he returned.			
15	F2	I went to the meeting last week because I was scheduled to speak.				
		What would you have done if you were not scheduled to speak at the meeting last week?	I would not have gone to the meeting (because I was not scheduled to speak).			
16	F3	Carlos may have been at the football game two weeks ago.				
		We don't know if Carlos was at the football game. Give a sentence indicating that he did not go.	Carlos wasn't at the football game two weeks ago.			
17	OP-FIM	The kite I held plummeted like a stone through the air onto the grass.				
		Where did the kite go?	Onto the grass			
		Which kite plummeted?	The kite I held			
		How did the kite plummet?	Like a stone			
18	P-RD	We continued to drink the milk and Mom was refilling our glasses.				
		What did Mom do?	Kept refilling our glasses			
		What did we do?	Continued to drink the milk			
19	OP-FMI	The arrow from the hunter's bow glided smoothly like a hawk to the target.				
		Where did the arrow go?	To the target			
		What was the glide like?	A hawk			
		How did the arrow glide?	Smoothly			

#	Type	Sentence & Questions	Target Response	Score	Score	Score
20	F2	Peggy went to the party on Friday because Jane was there.				
		What would Peggy have done if Jane wasn't at the party on Friday?	Peggy would not have gone to the party (on Friday because Jane wasn't there).			
			Total Score			

Next Steps:

Total Score ≥ 30	Windowing Training Complete.
Total Score < 30	Repeat baseline 2 more times, and then proceed to Phase A Treatment Task.

Phase A Treatment Task: Open Path Windowing

Instructions:
Instruct the patient to listen to the following set of 20 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the patient to answer the three corresponding comprehension questions. The target response for each question is indicated. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
         Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	The boy ran out of the house like a jackrabbit across the field to the barn.			
	How did the boy run?	*Like a jackrabbit*		
	Where did the boy run?	*Across the field*		
	Where did the boy go?	*To the barn*		
2	The ball kicked by the defender flew like a missile on a straight shot to the goal.			
	How was the ball kicked?	*Flew like a missile.*		
	What kind of kick was it?.	*On a straight shot*		
	Where did the ball go?	*To the goal.*		
3	The skydiver in the plane jumped through the door and dropped with his parachute to the ground.			
	How did the skydiver jump?	*Through the door*		
	How did the skydiver drop?	*With a parachute*		
	Where did the skydiver go?	*To the ground*		
4	The racecar driven by Jeff sped like a bullet around the track to the checkered flags.			
	How was the racecar driven?	*Like a bullet*		
	Where did the racecar drive?	*Around the track*		
	Where did the racecar go?	*The checkered flags*		
5	The hiker climbed like a mule from the camp up the steep cliff to the summit.			
	How was the hiker climbing?	*Like a mule*		
	Where was the hiker before he started climbing?	*From the camp*		
	Where did the hiker go?	*To the summit*		

#	Sentence & Question	Target	Score	Cueing Provided
6	The ball putted by the golfer rolled swiftly across the green into the hole.			
	How was the ball putted?	*Swiftly*		
	Where was the ball putted?	*Across the green*		
	Where did the ball go?	*Rolled into a hole*		
7	The ball thrown by the pitcher zipped like a flash into the strike zone toward the hitter's waiting bat.			
	How was the pitch thrown?	*Like a flash*		
	Where was the ball thrown?	*Into the strike zone*		
	Where did the pitch go?	*Zipped toward the hitter's waiting bat*		
8	The kayak paddled by the camper darted like a dolphin through the rapids to the shore.			
	How was the kayak paddled?	*Darted like a dolphin*		
	Where did the kayak dart?	*Through the rapids*		
	Where did the kayak go?	*To the shore*		
9	The statue sitting on the windowsill toppled like an anvil over the ledge to the courtyard below.			
	How did the statue topple?	*Like an anvil*		
	Where did the statue topple?	*Over the ledge*		
	Where did the statue go?	*To the courtyard below*		
10	The water from the well gushed like a geyser through the pump into the bucket.			
	How did the water gush?	*Like a geyser*		
	Where did the water gush?	*From the well through the pump*		
	Where did the water go?	*Into the bucket*		
11	The space shuttle blasted off from Cape Canaveral faster than a bullet through the atmosphere into outer space.			
	Where was the space shuttle before it blasted off?	*Cape Canaveral*		
	How did the space shuttle blast off?	*Faster than a bullet*		
	Where did the space shuttle go?	*Into outer space*		
12	The tourist from Maine drove slowly across the country as if he had all the time in the world until he arrived in California.			
	How did the tourist drive?	*Slowly*		
	Where did the tourist drive?	*Across the country*		
	Where did the tourist go?	*To California*		

#	Sentence & Question	Target	Score	Cueing Provided
13	The truck owned by Gary lumbered over the highway through the night to reach the warehouse.			
	Where did the truck lumber?	*Over the highway*		
	How long did the truck lumber?	*Through the night*		
	Where did the truck go?	*The warehouse*		
14	The snake with the green stripes slithered like a thief through the garden to reach the tall grass.			
	How did the snake slither?	*Like a thief*		
	Where did the snake slither?	*Through the garden*		
	Where did the snake go?	*The tall grass*		
15	The horse with the dappled mane galloped like the wind over the trail into the pasture.			
	How did the horse gallop?	*Live the wind*		
	Where did the horse gallop?	*Over the trail*		
	Where did the horse go?	*Into the pasture*		
16	The soldier in the national army marched day and night without tiring until he reached the base camp.			
	How did the soldier march?	*Without tiring*		
	How long did the soldier march?	*Day and night*		
	Where did the soldier go?	*The base camp*		
17	The duck on the farm waddled back and forth through the dandelions into the pond.			
	How did the duck waddle?	*Back and forth*		
	Where did the duck waddle?	*Through the dandelions*		
	Where did the duck go?	*Into the pond.*		
18	The snowball thrown by Jimmy hurtled like a shot over my head into the open window.			
	How did the snowball hurtle?	*Like a shot*		
	Where did the snowball hurtle?	*Over my head*		
	Where did the snowball go?	*Into the open window*		
19	The line cast by the fisherman rose like an arc through the air and dropped into the lake.			
	How did the line rise?	*Like an arc*		
	Where did the line rise?.	*Through the air*		
	Where did the line go?	*Into the lake*		
20	The brightly shining coin whirled like a top across the table into the child's waiting hands.			
	How did the coin whirl?	*Like a top*		
	Where did the coin whirl?	*Across the table*		
	Where did the coin go?.	*Into the child's waiting hands*		

	Total Score	

Next Steps:

Total Score ≥ 48	When criterion is met on two consecutive treatment trials, proceed to Phase B of Windowing.
Total Score < 48	Repeat Phase A treatment task during subsequent trial. Clausal Grounding task should be treated for a maximum of three sessions total.

Phase B Treatment Task: Phase Windowing

Instructions:
Instruct the patient to listen to the following set of 20 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the patient to answer the two corresponding comprehension questions. The target response for each question is indicated. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
      Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	The watch kept stopping and Mary was having to reset it.			
	What did the watch do?	Kept stopping		
	What did Mary do?	Kept resetting the watch		
2	When the meal would get cold, I would reheat it in the oven.			
	What did the meal do?	Kept getting cold		
	What did I do?	Kept reheating it in the oven		
3	The computer shut down frequently and I had to restart it over and over.			
	What did the computer do?	Kept shutting down		
	What did I do?	Kept restarting the computer over and over		
4	Henry was always losing his wallet, and Jenny had to go looking for it.			
	What did Henry do?	Kept losing his wallet		
	What did Jenny do?	Kept going to look for it		
5	The wind was blowing the decorations down, and Mindy was always rehanging them.			
	What did the wind do?	Kept blowing the decorations around		
	What did Mindy do?	Kept rehanging the decorations		

#	Sentence & Question	Target	Score	Cueing Provided
6	The ball kept rolling down the hill and Matt kept bringing it back.			
	What did the ball do?	Kept rolling down the hill		
	What did Matt do?	Kept bringing the ball back up		
7	The light bulbs were shorting out, and Kara was replacing them.			
	What did the light bulb do?	Continued shorting out.		
	What did Kara do?	Kept replacing the light bulbs		
8	The plant was drying up, so Wendy kept watering it.			
	What did the plant do?	Kept drying up.		
	What did Wendy do?	Kept watering the plant.		
9	The boat was leaking and Charlie was bailing the water.			
	What did the boat do?	Continued to leak.		
	What did Charlie do?	Kept bailing out the water.		
10	Emails were flooding my inbox, and I was deleting them as quickly as possible.			
	What did the emails do?	Continued to flood my inbox.		
	What did I do?	Kept deleting the emails as quickly as possible.		
11	The button kept popping off the shirt, and Helen kept sewing it back on.			
	What did the button do?	Kept popping off the shirt.		
	What did Helen do?	Kept sewing the button back on the shirt.		
12	The wind-up toy was stopping, and the child was resetting it.			
	What did the wind-up toy do?	Kept stopping		
	What did the child do?	Kept resetting the toy.		
13	As leaves were falling from the oak tree, Ben was raking them into piles.			
	What did the leaves do?	Fall from the oak tree.		
	What did Ben do?	Rake the leaves.		
14	The coins were falling through the hole in my pocket, and I was picking them up.			
	What did the coins do?	Fall through the hole in my pocket		
	What did I do?	Kept picking them up.		

#	Sentence & Question	Target	Score	Cueing Provided
15	The ice cream was melting and I kept putting it back in the freezer.			
	What did the ice cream do?	Melt		
	What did I do?	Kept putting the ice cream back in the freezer		
16	The gate was swinging open and I kept pushing it shut.			
	What did the gate do?	Continued to swing open.		
	What did I do?	Kept pushing the gate shut.		
17	The house of cards kept toppling down, and Megan was building it back up.			
	What did the house of cards do?	Kept toppling down.		
	What did Megan do?	Building the house of cards back up.		
18	The actor kept flubbing his lines, and the director was calling for more takes.			
	What did the actor do?	Kept flubbing his lines		
	What did the director do?	Kept calling for more takes.		
19	The car kept running out of gas and I kept filling it up.			
	What did the car do?	Kept running out of gas.		
	What did I do?	Kept filling up the car with gas.		
20	The dog kept trying to jump in the mud and I was pulling his leash.			
	What did the dog do?	Kept trying to jump in the mud.		
	What did I do?	Kept pulling the dog's leash.		
		Total Score		

Next Steps:

Total Score ≥ 32	When criterion is met on two consecutive treatment trials, proceed to Phase C of Windowing.
Total Score < 32	Repeat Phase B treatment task during subsequent trial. Windowing task should be treated for a maximum of three sessions total.

Phase C Treatment Task: Factuality windowing

Instructions:
Instruct the patient to listen to the following set of 20 sentences and to pay careful attention to comprehending them. Verbally present each sentence, and ask the patient to answer the corresponding comprehension question for each sentence. The target response for each question is indicated. Score correct and incorrect responses.

Cueing:
Provide feedback to the patient following each sentence. If patient does not answer correctly, provide cues per the hierarchy below to elicit correct response:
1. Provide cue to use auditory attention strategies (self-monitoring, rehearsal, listen and anticipate, repetition). As accuracy increases, reduce cueing for use of strategies.
2. Provide visual cue. As accuracy increases, reduce presence of visual cue for subsequent sentences (before and during question, before question only, etc.).

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response
           Also note the level of cueing provided.

Treatment Session: (circle one)   Session 1   Session 2   Session 3

Date Administered: _____

#	Sentence & Question	Target	Score	Cueing Provided
1	The journalist filed his story two days ago because his editor set the deadline.			
	What would the journalist have done if his editor did not set the deadline?	The journalist would not have filed his story two days ago because his editor did not set the deadline		
2	The salesman would have celebrated if he exceeded his yearly quota.			
	What happened because the salesman did not exceed his yearly quota?	The salesman did not celebrate.		
3	Polly may have rode her bike to the beach.			
	We don't know if Polly rode her bike to the beach. Give a sentence indicating that she did not.	Polly didn't ride her bike to the beach.		
4	Emily didn't make the call this morning.			
	What would be the opposite of this event?	Emily made the call this morning.		
5	The teacher joined the union because it was mandatory.			
	What would the teacher have done if joining the union was not mandatory?	The teacher would not have joined the union because it was not mandatory.		

#	Sentence & Question	Target	Score	Cueing Provided
6	Sara may have rented the apartment last week.			
	We don't know if Sara rented the apartment last week. Give a sentence indicating that she did.	Sara rented the apartment last week.		
7	The dog would have ran away if the gate was left open.			
	What happened because the gate was not left open?	The dog did not run away.		
8	Matt didn't attend the play yesterday evening.			
	What is the opposite of this event?	Matt attended the play yesterday evening.		
9	I would have worn a coat if it was cold outside.			
	What happened because it was not cold outside?	I did not wear a coat.		
10	Liz skipped school on Tuesday because she had a math test.			
	What would Liz have done if she did not have a math test on Tuesday?	Liz would not have skipped school on Tuesday because she did not have a math test.		
11	I didn't go to the grocery store last night.			
	What would be the opposite of this event?	I went to the grocery store last night.		
12	Dan would have cooked dinner if he was hungry.			
	What happened because Dan was not hungry?	Dan didn't cook dinner.		
13	Rob filed for unemployment because he lost his job. .			
	What would Rob have done if he had not lost his job?	Rob would not have filed for unemployment because he did not lose his job.		
14	Katelyn may have gotten the job at the advertising agency.			
	We don't know if Katelyn got the job. Give a sentence indicating that she did not.	Katelyn did not get the job at the advertising agency.		
15	Inez didn't march in the Memorial Day parade.			
	What would be the opposite of this event?	Inez march in the Memorial Day parade.		

#	Sentence & Question	Target	Score	Cueing Provided
16	Liz skipped school on Tuesday because she had a math test.			
	What would Liz have done if she did not have a math test on Tuesday?	Liz would not have skipped school on Tuesday because she did not have a math test.		
17	Wendy may have seen the movie on opening night.			
	We don't know if Wendy saw the movie on opening night. Give a sentence indicating that she did.	Wendy saw the movie on opening night.		
18	Neil would have gone to the doctor if he had the flu.			
	What happened because Neil did not have the flu?	Neil did not go to the doctor.		
19	The doctor didn't perform the open-heart surgery.			
	What would be the opposite of this event?	The doctor performed the open-heart surgery.		
20	Laura's sister may have been at the park yesterday.			
	We don't know if Laura's sister was at the park yesterday. Give a sentence indicating that she was not.	Laura's sister was not at the park yesterday.		
		Total Score		

Next Steps:

Total Score ≥ 16	When criterion is met on two consecutive treatment trials, Windowing is complete. See training completion criteria. Administer probe during subsequent treatment session.
Total Score < 16	Repeat Phase C treatment task during subsequent trial. Windowing task should be treated for a maximum of three sessions total.

Windowing Training Completion Criteria:
- Reach 80% accuracy on Phase C across two sessions

	Session 1	Session 2
Date Achieved		

OR
- Complete three consecutive sessions of Windowing Training

	Session 1	Session 2	Session 3
Date Achieved			
Phase(s) Completed			

Administer probe during next treatment session.

Windowing Probe

Verbally present the following set of 20 sentences to the patient, and ask him or her to respond to the corresponding comprehension questions. The questions evoke different types of windowing to direct the listener's attention to the core events in the sentences:

Open Path (OP) Windowing: Sentences describe paths of objects that are in motion and have beginning and ending points that are in different locations in space. Questions elicit open path windowing for initial (I), medial (M), and final (F) events in sentences in different orders.

Phase (P) Windowing: Sentences describe an iterating motion event where the beginning and ending points of a path are at the same location in space and form a circuit. Questions elicit phase windowing to direct listener's attention to departure (D) and return (R) phases in counterbalanced orders.

Factuality (F) Windowing: Sentences establish comparison of alternative conceptualizations for the occurrence or nonoccurrence of some referent. Questions elicit factuality windowing for an unrealized positive event (1), an unrealized negative event (2), an event at the opposite end of a continuum of certainty (3), and an overtly counterfactual event (4).

The target response for each question is indicated. Score correct and incorrect responses.

Scoring: 1 = correct response to comprehension question   0 = incorrect or no response

Date Administered: _____

#	Type	Sentence & Question	Target Response	Score
1	F4	The farmer would have lost his crop if the frost came early.		
		What happened because the frost did not come early?	The farmer did not lose his crop	
2	OP-IMF	The crate in the aircraft's cargo bay fell out of the plane through the air into the ocean.		
		Where was the crate before it fell?	In the aircraft's cargo bay	
		What did the crate do?	Fell out of the plane	
		Where did the crate go?	(Into) the ocean	
3	P-DR	The car battery continued to die and I kept recharging it.		
		What did the car battery do?	Continued to die	
		What did I do?	Kept recharging the battery	
4	F1	I wasn't in the meeting last week.		
		What would be the opposite of this event?	I was in the meeting last week.	
5	P-RD	The campfire continued to slowly burn the wood and the Boy Scout added more to fuel the flames.		
		What did the Boy Scout do?	Add more wood to fuel the flames	
		What did the campfire do?	Continued to slowly burn the wood	
6	OP-IFM	The fireworks on the Fourth of July shot like lighting from the ground and exploded into the night sky.		
		How did the fireworks shoot?	Like lightning	
		Where did the fireworks explode?	Into the night sky	
		Where did the fireworks shoot from?	From the ground	

#	Type	Sentence & Question	Target Response	Score
7	F3	Lila may have been on stage for the entire performance.		
		We don't know if Lila was on stage for the entire performance. Give a sentence indicating that she was.	Lila was on stage for the entire performance.	
8	P-RD	The wind kept blowing the door open and each time I closed it.		
		What did I do?	I kept closing the door	
		What did the wind do?	Kept blowing the door open	
9	F4	The family would have shopped for presents if they had the time.		
		What happened because the family did not have time?	The family did not shop for presents.	
10	OP-MIF	The water on the stove boiled over the pot into the hot flame and onto the floor.		
		Where did the water boil?	Into the hot flame	
		How did the water boil?	Over the pot	
		Where did the water go?	Onto the floor	
11	P-DR	The pen kept falling off the table and I kept putting it back.		
		What did the pen do?	Kept falling off the table	
		What did I do?	Kept putting the pen back	
12	OP-MFI	The leaf on the oak tree floated lightly like a feather twisting and twirling all the way to the ground.		
		What kind of floating was it?	Twisting and twirling	
		Where did the leaf go?	All the way to the ground	
		How did the leaf float?	Lightly like a feather	
13	F1	George didn't go the concert yesterday.		
		What would be the opposite of this event?	George went to the concert yesterday.	
14	P-DR	Each time I called Mr. Smith on the phone, I was told to call again when he returned.		
		What did I do?	I kept calling Mr. Smith on the phone	
		What was I told?	To call again when he returned.	
15	F2	I went to the meeting last week because I was scheduled to speak.		
		What would you have done if you were not scheduled to speak at the meeting last week?	I would not have gone to the meeting (because I was not scheduled to speak).	
16	F3	Carlos may have been at the football game two weeks ago.		
		We don't know if Carlos was at the football game. Give a sentence indicating that he did not go.	Carlos wasn't at the football game two weeks ago.	
17	OP-FIM	The kite I held plummeted like a stone through the air onto the grass.		
		Where did the kite go?	Onto the grass	
		Which kite plummeted?	The kite I held	
		How did the kite plummet?	Like a stone	
18	P-RD	We continued to drink the milk and Mom was refilling our glasses.		
		What did Mom do?	Kept refilling our glasses	

Windowing

#	Type	Sentence & Question	Target Response	Score
		What did we do?	Continued to drink the milk	
19	OP-FMI	The arrow from the hunter's bow glided smoothly like a hawk to the target.		
		Where did the arrow go?	To the target	
		What was the glide like?	A hawk	
		How did the arrow glide?	Smoothly	
20	F2	Peggy went to the party on Friday because Jane was there.		
		What would Peggy have done if Jane wasn't at the party on Friday?	Peggy would not have gone to the party (on Friday because Jane wasn't there).	
			Total Score	

References

Blackwell, A., & Bates, E. (1995). Inducing agrammatic profiles in normals: Evidence for the selective vulnerability of morphology under cognitive resource limitation. *Journal of Cognitive Neuroscience, 7*(2), 1–49.

Caplan, D., & Waters, G. S. (1999). Verbal working memory and sentence comprehension. *Behavioral and Brain Sciences, 22*(01), 77–94.

Coslett, H. (1999). Spatial influences on motor and language function. *Neuropsychologia, 37,* 695–706.

Crosson, B., Fabrizio, K. S., Singletary, F., Cato, M. A., Wierenga, C. E., Parkinson, R. B., . . . Gonzalez Rothi, L. J. (2007). Treatment of naming in nonfluent aphasia through manipulation of intention and attention: A phase 1 comparison of two novel treatments. *Journal of the International Neuropsychological Society, 13*, 582–594. https://doi.org/10.10170S1355617707070737

Cutler, A., & Fodor, J. A. (1979). Semantic focus and sentence comprehension. *Cognition, 7*(1), 49–59.

Hula, W. D., & McNeil, M. R. (2008). Models of attention and dual-task performance as explanatory constructs in aphasia. *Seminars in Speech and Language, 29*(3), 169–187.

Langacker, R. L. (2008). *Cognitive grammar: A basic introduction*. New York: Oxford University Press.

LaPointe, L. L., & Erickson, R. J. (1991). Auditory vigilance during divided task attention in aphasic individuals. *Aphasiology*, *5*(6), 511–520.

McNeil, M. R., Doyle, P., Hula, W. D., Rubinsky, H., Fossett, T. R. D., & Matthews, C. T. (2004). Using resource allocation theory and duel-task methods to increase the sensitivity of assessment in aphasia. *Aphasiology, 18*(5), 521–542.

Myachykov, A., & Posner, M. I. (2005). Attention in language. In L. Itti, G. Rees, & J. K. Tsotsos (Eds.), *Neurobiology of attention* (pp. 324–329). Boston, MA: Elsevier.

Peach, R. K. (2012). Management of acquired language disorders associated with attentional impairment. In R. K. Peach & L. P. Shapiro (Eds.), *Cognition and acquired language disorders: An information processing approach (*pp. 241–274). St. Louis, MO: Elsevier Mosby.

Peach, R. K., Nathan, M. R., & Beck, K. M. (2017). Language-specific attention treatment for aphasia: Description and preliminary findings. *Seminars in Speech and Language*, *38*(1), 5–16.

Shankweiler, D., Crain, S., Gorrell, P., & Tuller, B. (1989). Reception of language in Broca's aphasia. *Language and Cognitive Processes, 4*(1), 1–33.

Talmy, L. (2003). The windowing of attention in language. In *Toward a cognitive semantics volume I: Concept structuring systems* (pp. 258–309). Cambridge, MA: The MIT Press.