

Stimuli & Tasks

Janitta & Samantha

Stimuli: Pardo (2017)

- Minimal pairs
- Low vs. high frequency
- Bi vs. monosyllabic

Stimuli: Pardo (2010)

- Pretest: *heed, hid, head, had, hut, hot, caught, hood, hoot*
- Target sentences (see right)
- Map task

Instructions		Female Pair 1	Female Pair 2	Female Pair 3
Givers instructed to imitate	Receivers repeat givers	east lake walled city winter garden	flowing river green bay walled city	blacksmith cattle ranch
	Givers repeat receivers	baboons farmed land old truck	baboons east lake tall pine	graveyard wishing well
		Female Pair 4	Female Pair 5	Female Pair 6
Receivers instructed to imitate	Receivers repeat givers	east lake green bay parked van	camera shop green bay monastery	large cottage farmed land remote village
	Givers repeat receivers	flowing river walled city west lake	east lake farmed land pyramid	east lake marshland winter garden
		Male Pair 1	Male Pair 2	Male Pair 3
Givers instructed to imitate	Receivers repeat givers	blacksmith meadow wheat field	large cottage fallen rocks winter garden	crest falls east lake walled city
	Givers repeat receivers	country road east lake fallen rocks	dead tree sandy shore walled city	diamond mine picket fence teepees
		Male Pair 4	Male Pair 5	Male Pair 6
Receivers instructed to imitate	Receivers repeat givers	east lake marsh land old truck	east lake fallen rocks graveyard	camera shop east lake monastery
	Givers repeat receivers	baboons dead tree telephone booth	dead tree meadow wheat field	farmed land golf course

(Manuscript received September 8, 2009;
revision accepted for publication June 10, 2010.)

Pardo (2010)

Appendix A: Word sets

Bisyllabic		Monosyllabic	
Low Frequency	High Frequency	Low Frequency	High Frequency
active	basis	babe	bad
balance	become	bathe	bag
beacon	before	beak	beach
bicop	better	bean	beam
captain	between	boot	beat
career	beyond	cage	bet
careful	city	cake	bone
cavern	common	cop	check
coffee	country	cot	death
cousin	father	dab	dock
deport	figure	dad	foot
dozen	final	dame	gain
fashion	later	deaf	game
favor	market	debt	gave
forage	matter	dome	get
forget	music	dot	got
garden	nature	fad	half
garter	never	gene	known
gusto	number	hoof	laugh
handle	order	hook	loan
hazel	party	hoot	lock
jelly	people	keen	mean
listen	person	knock	moon
master	picture	leach	note
mingie	police	marsh	pot
nectar	power	moan	put
novel	program	moat	rock
nugget	public	mop	room
parcel	rather	nape	rose
patron	recent	pep	sad
permit	report	pet	sang
pigeon	river	rash	save
portal	second	roam	scene
rustic	single	robe	shape
staple	social	rope	suit
symbol	spirit	sag	tape
title	system	siege	team
venom	table	sock	top
vision	value	tune	wrote
wedlock	water	womb	youth

Pardo (2017)

Stimuli: Biro, Toscano, Viswanathan (2022)

- Study on task engagement + phonetic convergence
- Minimal pairs
- POA
- Voiced vs. voiceless
- Tasks: Word matching puzzles in high engagement task (Minecraft) vs. low engagement task finding words in a list

Table 2

Complete list of stimuli.

Place of articulation	Voiced Stimulus	Voiceless Stimulus	Kučera-Francis frequency for voiced stimulus	Kučera-Francis frequency for voiceless stimulus
Alveolar	die	tie	73	23
Alveolar	dime	time	4	1599
Alveolar	down	town	895	212
Alveolar	dry	try	68	140
Alveolar	dent	tent	2	20
Alveolar	den	ten	2	165
Alveolar	doe	toe	1	9
Alveolar	duck	tuck	9	9
Alveolar	done	ton	320	13
Alveolar	dart	tart	–	7
Bilabial	big	pig	360	8
Bilabial	bet	pet	20	8
Bilabial	bark	park	14	94
Bilabial	bad	pad	142	8
Bilabial	bat	pat	18	35
Bilabial	bath	path	26	44
Bilabial	beg	peg	11	4
Bilabial	bear	pear	57	6
Bilabial	bay	pay	57	172
Bilabial	batch	patch	5	13
Velar	got	cot	482	–
Velar	ghost	coast	11	61
Velar	grew	crew	64	36
Velar	gap	cap	17	27
Velar	game	came	123	622
Velar	goat	coat	6	43
Velar	guard	card	48	26
Velar	gold	cold	52	171
Velar	glass	class	99	207
Velar	gut	cut	1	192

Stimuli: Munson & Solomon (2004)

- High and low frequency/density
- Monosyllabic words
- CVC word set
- Target words read aloud individually, no conversation

Table 2

Stimulus words for Experiment 2.

Vowel	High frequency/high density	High frequency/low density	Low frequency/high density	Low frequency/low density
a	got	dock	dot	mop
a	lock	rock	knock	sock
a	pot	top	cot	cop
æ	bad	bag	dad	dab
æ	sad	sang	fad	sag
æ	half	laugh	mash	rash
ɛ	get	death	debt	deaf
ɛ	bet	check	pet	pep
eɪ	save	gave	cage	bathe
eɪ	game	gain	dame	babe
eɪ	tape	shape	cake	nape
i	beat	beach	beak	leach
i	team	scene	keen	siege
i	mean	beam	bean	gene
oʊ	note	wrote	moat	rope
oʊ	rose	known	moan	robe
oʊ	bone	loan	roam	dome
u	youth	suit	boot	hoot
u	moon	room	womb	tune
ʊ	foot	put	hook	hoof

Stimuli: Minimal Pairs / Quasi-Minimal Pairs / Objects

- Pug / bug / pig / fig /
- Pea / bee / tea / key /
- Peach / beach
- Pearl / girl / curl /
- Pan / van / can / fan
- Pest / vest / test /
- Pink / sink / mink / link
- Pan / man / fan / van
- Pail / nail / rail / sail / mail
- Bat / rat / vat / hat
- Bun / sun / gun / nun
- Beet / feet / wheat / meat
- Box / fox / lox /
- Bell / shell / gel / well
- Bid, bead, bit, beat
- Rock/ lock / sock / dock

Stimuli Resources

- <http://www.iphod.com/>
 - Used in Dias & Rosenblum (2016)
- Collins Birmingham University International Language Database - COBUILD
 - Used in Mukherjee et al. (2018) for word frequencies

Task: Kim, Horton & Bradlow (2011) Lewandowski & Jilka (2019)

- Adopted Pardo (2006) map task - diapix elicitation task
- Spot 10 differences from picture pairs A & B (shop scene)
 - Target words such as cheese soup vs beef soup
- Natural speech (no fixed talker roles)
- Participants had 1 picture each, seated facing opposite walls in soundproof room with headphones



Task: Bailly & Lelong (2010)

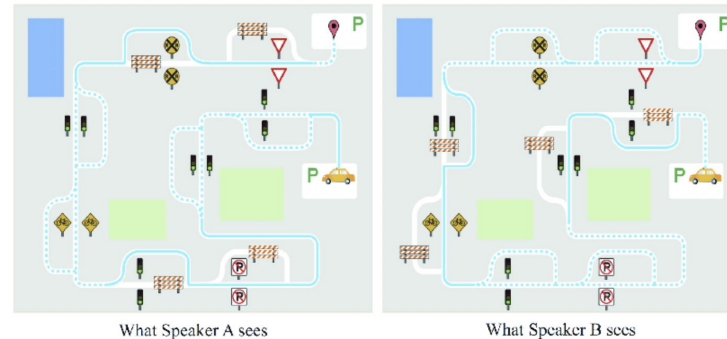
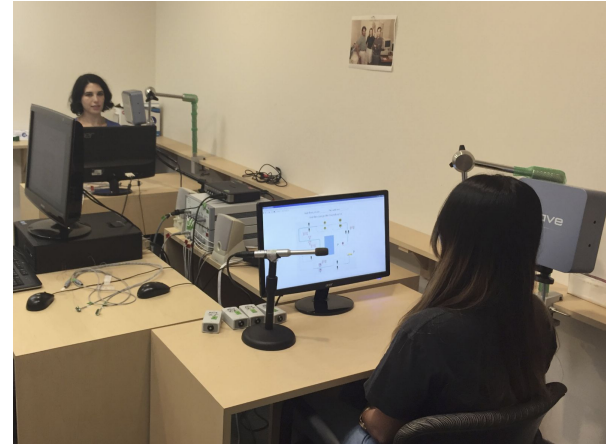
- Speech dominoes game
- Asked to select the word in the word list which begins with the same syllable as the word previously pronounced by the partner ie. bateau [bato], taudis [todi], diffus [dify], furie [fyri]
 - 1. Experiment I “unknowns” is performed by pairs of subjects that have been never talked to each other.
 - 2. Experiment II “friends” is performed in contrast by pairs who are good friends, knowing and working together for years.
 - 3. Experiment III “face-to-face” friends sat across a table where two screens are placed back-to-back for displaying alternatives. Clicks on one unique moose used alternatively by each subject forward turns.



Figure 2: Face-to-face interaction. The scene is captured by a unique camera thanks to a mirror positioned at the left hand side of one interlocutor. Head movements were monitored during this experiment.

Task: Lee et al. (2018)

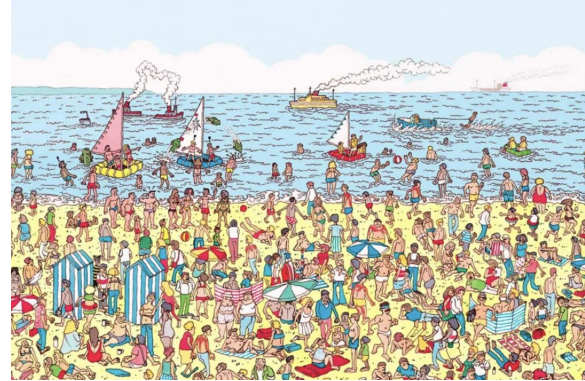
- *This study uses a maze navigation task in conjunction with a quasi-scripted, prosodically controlled speech task to examine acoustic and articulatory accommodation in pairs of interacting speakers*
- Sentence reading task + target sentences
- Individual map task + target words (between/beside/lights/signs)
- Cooperative map task - 18 maps x 2 per session, 36 total maps shown to pair



Example cooperative maze task. <https://doi.org/10.1371/journal.pone.0201444.g004>

Task Brainstorm

- “Guess Who” - would include scripted language, turn taking, cooperative play ie. “Does your character have blue eyes?”
 - We could edit the characters for target words ie. change details of their clothing, accessories, appearance
- “Where’s Waldo?” - could include landmarks for direction (as per the Diapix/Map tasks), scripted language, could be more or less complicated
- Go Fish - Jetic mentioned creating our own cards
- Colouring page - each pair could instruct the other to colour a page according to their instructions
- Battleship - turn taking, could modify the letters/numbers on the board to our target sounds
- Two truths & a lie - must include target sounds
- Lego - one person has instructions, one person has the pieces (small set!)
- Jenga - one person has the blocks, one person giving instructions



Task Brainstorm (cont'd)

- Modified Speech Domino Game - Mukherjee et al. (2018)
 - Partners guess through sequence of quasi minimal pairs via pictures of target and non-target objects after each turn to reduce memory retrieval
- Minimal Pairs Pelmanism (Memory card game)
 - Stack of cards face down with partners working together to find matching minimal pairs
- Codenames
 - Take turns being the spymaster giving one-word clues to multiple words on the board
- The Sims - similar to Minecraft idea where target objects are options to place

References

Gérard Bailly, Amélie Lelong. Speech dominoes and phonetic convergence. *Interspeech 2010 - 11th Annual Conference of the International Speech Communication Association*, Sep 2010, Makuhari, Japan. pp.1153-1156.

Biro, T., Toscano, J. C., & Viswanathan, N. (2022). The influence of task engagement of phonetic convergence. *Speech Communication*, 138, 50-66. <https://doi.org/10.1016/j.specom.2022.02.002>

Lee, Y., Gordon Danner, S., Parrell, B., Lee, S., Goldstein, L., & Byrd, D. (2018). Articulatory, acoustic, and prosodic accommodation in a cooperative maze navigation task. *Plos one*, 13(8), e0201444.

Munson, B., & Solomon, N. (2004). The effect of phonological neighbourhood density on vowel articulation. *Journal of Speech Language and Hearing Research*, 47(5), 1048-58. [https://doi.org/10.1044/1092-4388\(2004/078\)](https://doi.org/10.1044/1092-4388(2004/078))

Mukherjee, S., Badino, L., Hilt, P. M., Tomassini, A., Inuggi, A., Fadiga, L., Nguyen, N., & D'Ausilio, A. (2019). The neural oscillatory markers of phonetic convergence during verbal interaction. *Human brain mapping*, 40(1), 187–201. <https://doi.org/10.1002/hbm.24364>

Pardo, J. S., Urmanche, A., Wilman, S., & Wiener, J. (2017, November). Phonetic convergence across multiple measures and model talkers. *Attention, Perception & Psychophysics*, 79, 637-659.

Guess Who Task - Mock Experiment

Janitta & Samantha (August 11, 2022)

This mock experiment would include:

- **Task #1:** Baseline - Each participant reads aloud all target words
- **Task #2:** Guess Who Game with both participants - repeat as needed
 - (Gilbert, 2014) Various conditions of noise:
 - (1) Quiet speech
 - (2) Listening to babble via headphones
 - (3) Mixed noise at various decibel levels
- **Task #3:** Participants chat - conversational context condition



Guess Who Task - Mock Experiment

Stimuli must be:

- Monosyllabic
- CVC
- High frequency
- Object (easily visualized)
- Target different vowels
- Use minimal or pseudo-minimal pairs
- Be found in a similar consonantal context

*include non-target words as well?

Speaker 1

- Bell
- Ball
- Bull
- Bill

Speaker 2

- Bead
- Beet
- Bat
- Boot

Guess Who Task - Mock Experiment

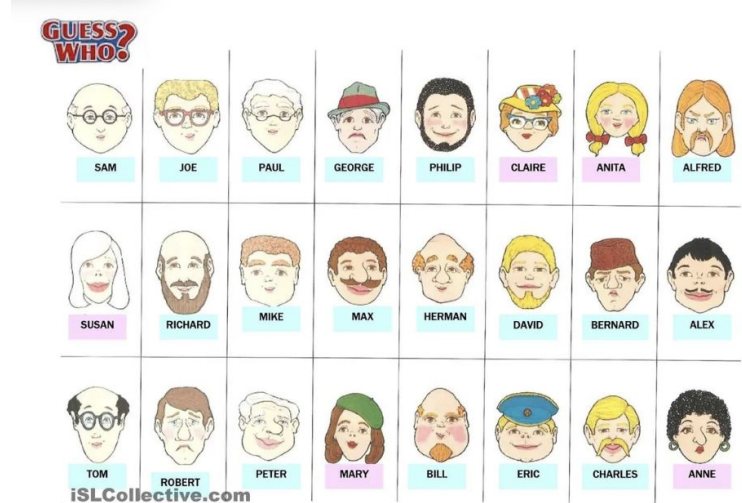
Stimuli

Carrier phrases:

#1: "Is your person holding a _____?"

#2: "Yes/no, my person is/isn't holding a
_____."

*multiple rounds to encourage repetition



Speaker 1



Speaker 2



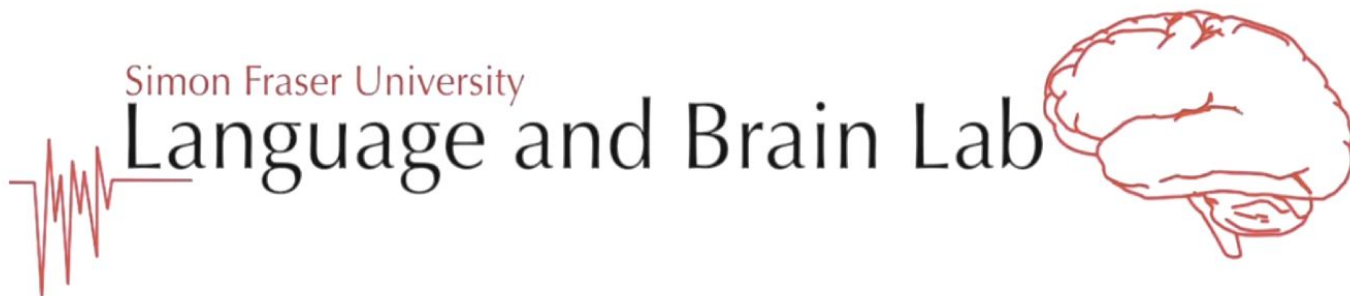
Guess Who Task - Mock Experiment

Questions we asked during this process:

- Do we need a learning trial / a legend of the target words to ensure participants know them? (Would a legend decrease eye contact bw participants?)
- Is our aim to create a “competitive” game or a collaborative process?
- How do we ensure participants are facing each other & engage with each other during the task?
- How do we ensure multiple repetitions of target stimuli?
- How many repetitions of the game are ideal?

Mock Experiment - August 24, 2022

- Added multiple levels of noise conditions (quiet speech, listening to 4-6 people babble, mixed noise) - convergent adaptation
 - Both participants wearing headphones
- Example of natural repetition during training (with experimenter):
 - “Is your person holding a ____?”
 - “Yes, my person is holding a ____”
 - “They’re holding a _____?”
 - “Oh, okay, a _____”
- Private booths with plexiglass in between participants? I.e. face-to-face experiment, but in different rooms, with headphones
- Rules? Do they make the game less natural?



Stimuli & Task Revisions

September 12, 2022

Samantha & Janitta

Previous Feedback

- Add noise for confusion, will help measure intelligibility
- Face to face for Task #2 - how to make it work
- Rules of the game to make the conversation more natural - ie. Players lose points if you use pronouns, built in repetition (ie. “That is not A, it is B”)
- Location of the target stimuli ie. voice quality at the end of a question/sentence - can be mediated with “My person is holding a bowl” (but target still appears at the end of the word)
- Speak like Yoda? “A **bull**, I’m holding?”

Experiment Overview

This mock experiment would include:

- **Pre-task:** Baseline - Each participant reads aloud all target words
- **Task #1:** Guess Who Game with both participants - repeat as needed
- **Post-task**
- **Pre-task**
- **Task #2:** Diapix Task with both participants - repeat as needed
- **Post-Task**



Stimuli

Stimuli must be:

- Monosyllabic
- CVC
- High frequency
- Object (easily visualized)
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- Use minimal or pseudo-minimal pairs
- Be found in a similar consonantal context

*include non-target words

Example:

Speaker 1

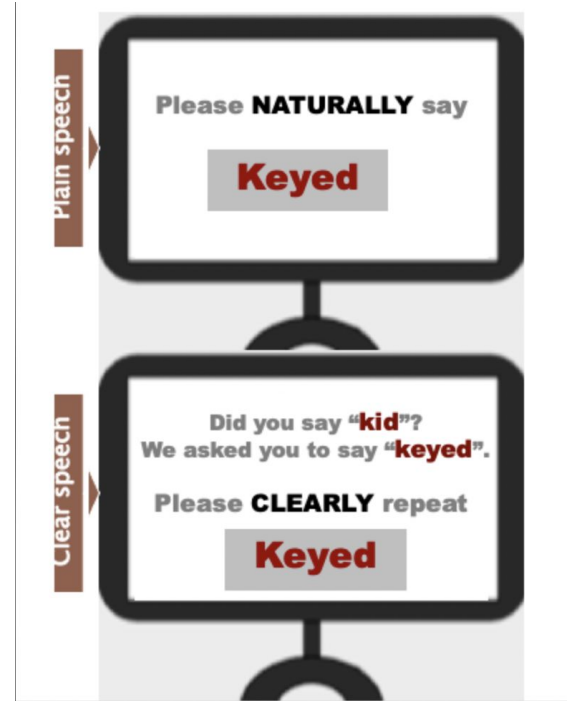
- Bell
- Ball
- Bull
- Bill

Speaker 2

- Bit
- Beet
- Bat
- Boot

Task #1 Pre-Task: Baseline Measurements / Guess Who Demo

- Participants will be given the target word list including non-target words via computer and asked to read the words aloud in plain & clear speech
- Experimenter will play the Guess Who game with each participant separately to illicit natural repetition during training
 - “Is your person holding a ____?”
 - “Yes, my person is holding a ____”
 - “They’re holding a _____?”
 - “Oh, okay, a _____”



Task #1: Guess Who Game (Conversation Elicitation)

- Both participants to take turns questioning and answering until target person (with the target objects) are discovered
 - Participants will wear headphones with mic in private booths with plexiglass, i.e. face-to-face experiment but in different rooms
 - (Gilbert, 2014) Multiple levels of noise conditions of noise:
 - (1) Quiet speech
 - (2) Listening to 4-6 people babble
 - (3) Mixed noise at various decibel levels
 - Convergent adaptation
 - Do rules make the game less natural? For built-in repetition, participants may lose points whenever they forget to say the target or non target words?

Task #1: Guess Who Game Stimuli

Stimuli

Carrier phrases:

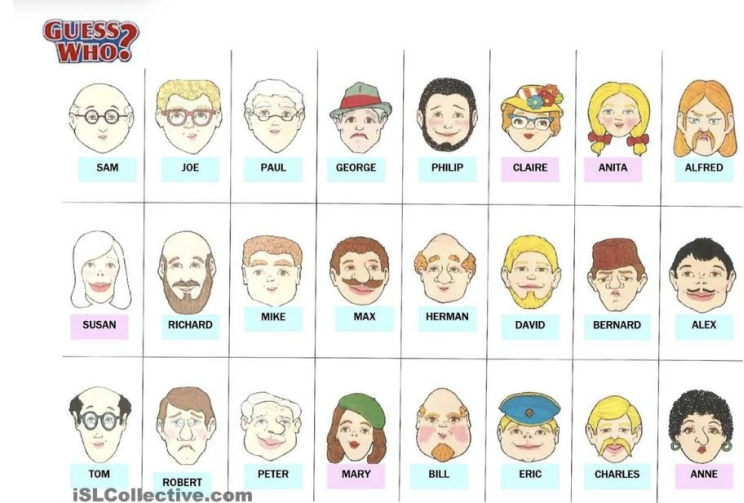
#1: "Is your person holding a _____?"

#2: "Yes/no, my person is/ isn't holding a _____."

#3: "They're holding a _____?"

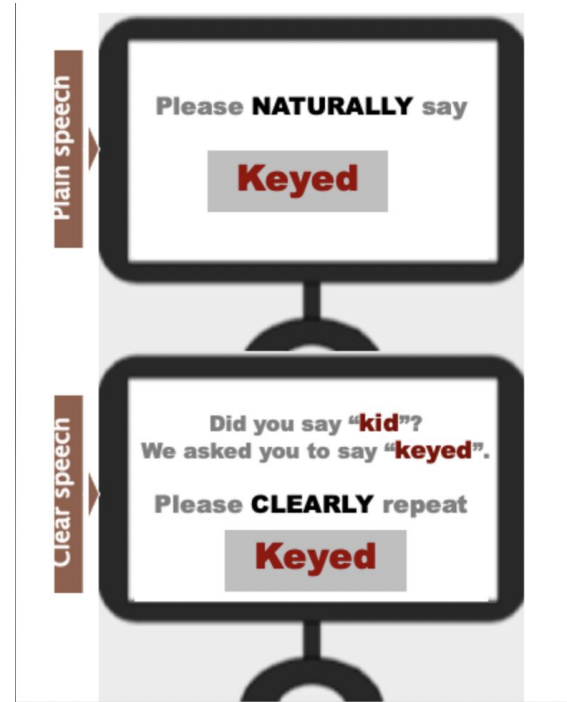
#4: "Oh, okay, a _____."

*multiple rounds to encourage repetition



Task #1 Post-Task: Baseline Comparison

- Participants will again be given the target word list including non-target words via computer and asked to read the words aloud in plain & clear speech

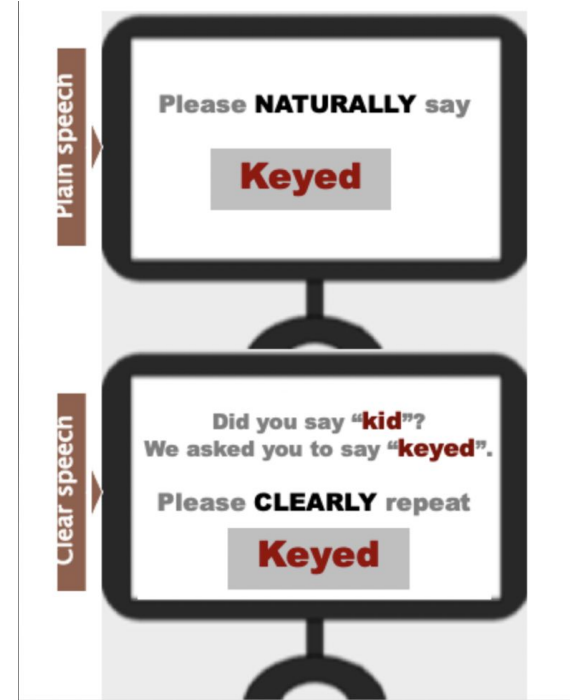


Limitations of Task #1: Guess Who Task

- Face-to-face - does this qualify?
- Stimuli always falls at the end of the question
- Other limitations?

Pre-Task #2: Baseline Training / Diapix Task Demo

- Participants will be given the target word list including non-target words via computer and asked to read the words aloud in plain & clear speech
- Experimenter will play the Diapix game with each participant separately to illicit natural repetition during training
 - #1: “On the left, is your character holding a _____?”
 - #2: “Oh, did you say _____?”
 - #3: “Yes/No, I said _____”
 - #4: “Oh, I understand, _____. No, that character is actually holding a _____ in my picture.”

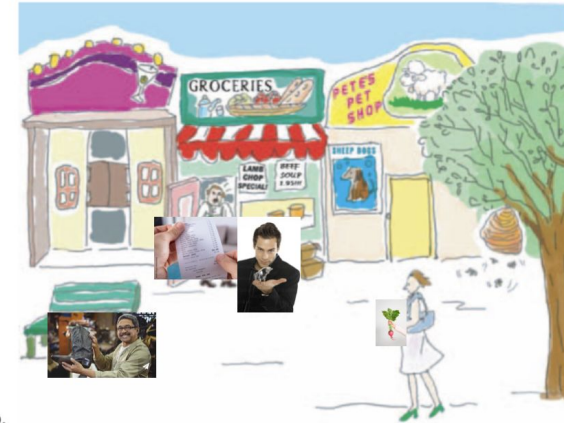


Task #2: Diapix Task

- Participants have different diapix images (ie. Participant 1 has [a] and Participant 2 has [b])
- Same stimuli as Task 1
- Both participants to take turns questioning and answering until target items and their location are discovered
- (Gilbert, 2014) Multiple levels of noise conditions of noise:
 - (1) Quiet speech
 - (2) Listening to 4-6 people babble
 - (3) Mixed noise at various decibel levels
- Divergent adaptation



a.



b.

Kim, Horton & Bradlow (2011)

Task #2: Diapix Task

Stimuli

#1: “On the left, is your character holding a _____?”

#2: “Oh, did you say _____?”

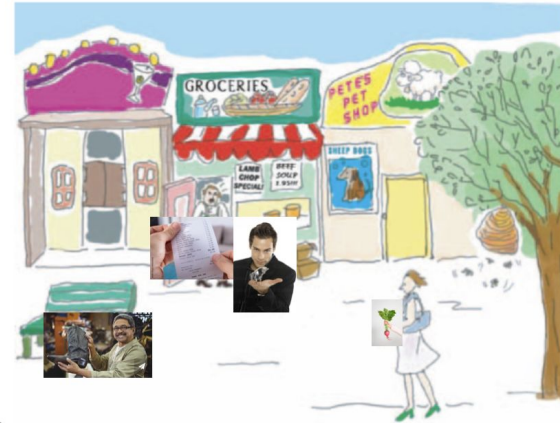
#3: “Yes/No, I said _____”

#4: “Oh, I understand, _____. No, that character is actually holding a _____ in my picture.”

*multiple rounds to encourage repetition



a.

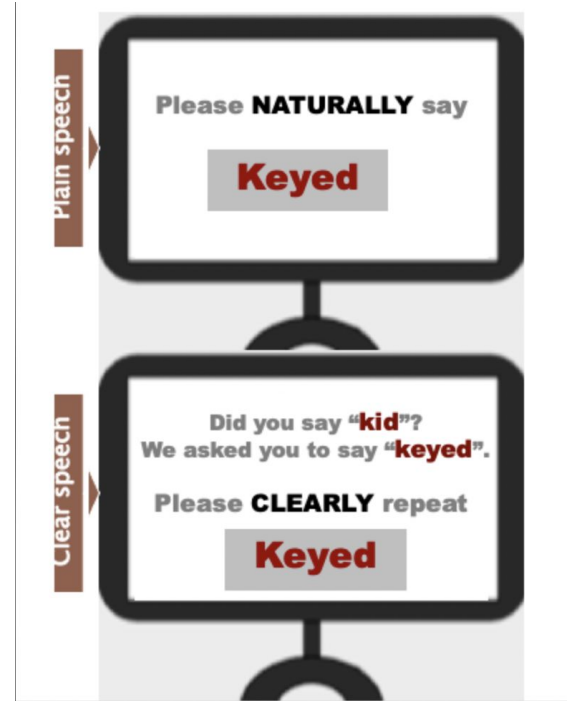


b.

Bradlow (2011)

Task #2 Post-Task: Baseline Comparison

- Participants will again be given the target word list including non-target words via computer and asked to read the words aloud in plain & clear speech

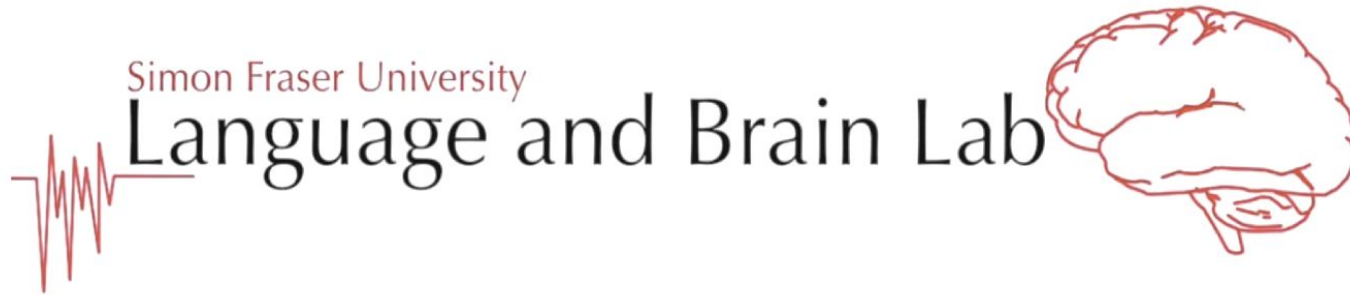


Limitations of Task #2

- Limited stimuli?
- Location of stimuli in carrier phrase?
- Do we need to include a face-to-face condition? What are we measuring with the visual component?

Feedback/Comments/Improvements?

- Do we need listeners to rate the convergence? Do we need a perception task?
 - E.g. AXB, BXC, AXB similarity tests
- More feedback?
- Testing intelligibility is the main goal??
 - Intelligibility task with the listeners can be included (comparing speaker A + B repetitions, e.g. AXB)
 - Investigating instances of convergence in repetitions and instances of convergence to correct any confusion during conversation
- Noise conditions only heard by speakers with headphones and mic to record speech productions - OK!
- In pre- and post-tasks, keeping target words semantically and syntactically the same? Use image easily represented
- Literature suggests comparing first natural production against last
- Manipulate rather than control all variables! Attempt then eliminate



Stimuli & Task Revisions

Monday, September 26, 2022

Janitta & Samantha

General Feedback

- Good structure - pre- and post-task is great – similar to scripted AVC experiments (Yes!)
- Good idea of unscripted conversation but can also be supported with pre-test training
- Think of what kind of feedback is included - can be unlimited and unfixed repetitions - do we leave it open to participants? How to balance across all target words and target feedback we want to include?
- How can we make it possible to have it face-to-face conversation? Since participants will be looking at the screen for the images, how do we get them to rely on facial cues when listening/comprehension is challenging?
- What is the difference between the diapix task vs guess who game? Why are 2 tasks needed?
- Ideas to consider - Instead of 2 interlocutors with open conversation, perhaps involving an experimenter as 1 of the interlocutors
- Instead of images, having interlocutors holding objects? Giving interlocutors opportunity for face-to-face interaction
- As a first attempt, idea to place target words all at the end (or beginning; similar locations) of the utterances so we don't have to focus on intonation
- Word frequency - should be similar familiarity

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- Boot

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Previous feedback & Thoughts

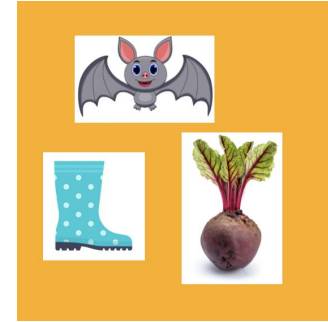
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Updates

- Add **rules**: keep carrier phrases as part of the pre- & post- task, but allow more natural conversation during game play
- Instead of pre-training with experimenter, have group come together & read the instructions, talk naturally about the game, set it up
 - Have “examples” nearby of how to ask questions, how to win the game
- Why two tasks? To elicit more conversation
 - Build on the 1st task, use the same set up & rules, encourages repetition

Consideration of feedback

- Keep pre- & post-task as before
- Need rules for the game
- Need a carrier phrase
- Can we make it a face-to-face task? Can we have a physical game instead of using a screen?
- “Guess What” Game!
 - No characters, just multiple target words per card, various combinations
- Participants need to guess the exact combination of symbols ie.
 - “Do you have a bat, a boot and a beet?”
 - “No, I have a bat and a boot...”
- Physical game, using the Guess Who board, with our cards
- Can adapt diapix in a similar way



Guess What! Game Instructions

What wacky items do you have?

Objective of the Game: Guess what your opponent's Mystery Card before your opponent guesses what is on yours.

Draw a Mystery card from the deck and insert it in the slot in front of your tray. Familiarize yourself with the other cards in your tray.

Take turns asking yes or no questions to guess each other's Mystery cards.

Q: "Does your card have a _____?"

A: "Yes/no, my card does/does not have a _____."

When you think you know which items your opponent has - make a guess!

*Bonus points for following this format!

Additional feedback

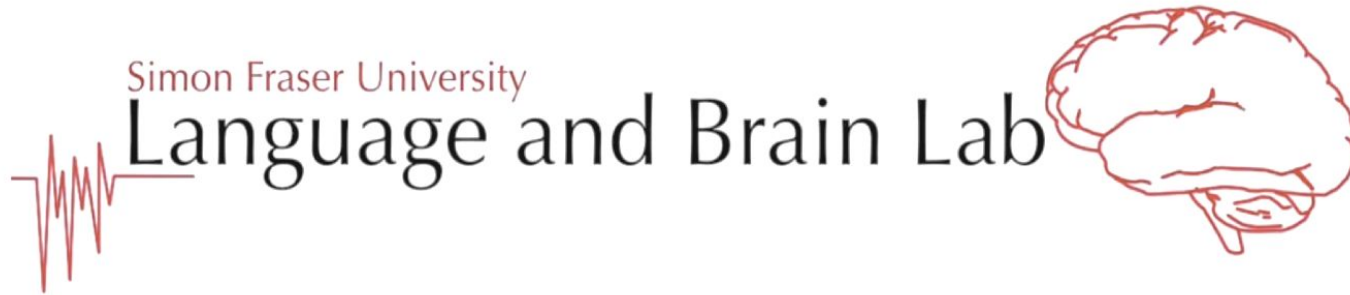
- Face to face is good!
- More instructions are better than no instructions
- Allow clarification questions - provide a script example
 - "If you didn't hear your partner clearly, feel free to ask for clarification! This might look like 'Did you say _____?'"
- Good format to compare more structure vs. less structure
- Keep in mind - video recording, avoid noise
 - Try to avoid noise while talking ie. knocking down the cards, plastic frame?
- **Maybe another condition with one experimenter/one interlocutor - deception?**
 - Interlocutor as a game host?
- Goal oriented
- How to incorporate background noise? Small earphone? AirPods?
- Lee et al. (2018); good set up! Consider height of monitor/looking down at the game
- To encourage more face to face: 2 phases? 2 minutes with computer & noise, 30 seconds without noise?
- Good initial experiment phase! :)
- Frequency: not a concern in this phase, limit ourselves to frequent words (frequency dictionary)
- Murder mystery game (diapix): screen displays one sentence at a time, taking turns for each participant, blank screen b/w displays for participants to discuss what's going

Meeting with Dr. Wang - October 12

- What to add?
 - Formal: provide some context (complete, comprehensive)
 - Demo with slide showing what a trial might look like (ie. this is how the trial starts with visuals, "we expect speaker A to say...., we expect speaker B to respond...")
 - Script!
 - Include what the set-up looks like
- Hypotheses?
 - "Beginning vs end of the conversation"
 - "Audio vs. audiovisual"
 - "Noise vs. no noise"
 - Ivans group: tone merging
 - Vowels
 - Word frequency as an example to show a comparison
 - Hypothesis: people are more likely to adapt if a word is a frequent word
 - "People tend to adapt more for tense vowels than lax vowels"
 - "People are more likely to adapt if the speaker is a native speaker of English and the 2nd speaker is a nonnative speaker"
 - Jetic's group: "A human speaker may more likely adapt to an AI's pronunciation"
 - Native/non-native speaker doesn't make our study unique enough
 - Munson paper & neighbourhood density
 - d/t - increase VoT
 - Clear speech - /d/ involves more aspiration
 - Sid / sit ; word final sounds can allow longer VoTs
 - Minimal pair: two frequent words vs. frequent & non frequent words ("look for research relating to vowels")
 - Difference bw vowels and consonants
- Keep consonantal context the same, vary vowels
- /eee/ /aaa/ /ooo/ - drastic mouth shape differences, good
- More consonantal contexts are good - ie. 4 words with the same vowel and different consonantal neighbours are good to extend the hypothesis
- We don't need the entire vowel inventory - but good to have a span of the vowel map
- Compare visual and audio
- Tense vowels - more visual cues
- Lax vowels - the distinction isn't as prominent from the face; but the distinction is more from acoustic info
 - Hypothesis: lax vowels might be easier to distinguish

Meeting with Dr. Wang - October 12

- Total: 4-6 vowels
- Can expand to different consonantal contexts
- Can expand to quasi minimal pairs
- *representative words and a sample trial is the goal for October 24th
- Research question:
- Timeline: present updates on Monday 19th
- Presentation of stimuli: cloth tray & stuffed animals?
- Diapix on computer monitor, “Guess What?” in physical form
- Diapix: present a question on the screen - ie. “Discuss where the ball is placed.” to force natural convo & looking away from the screen
 - Show diapix scene (not complex) - objects should all be real objects not written (as best we can)
- How to encourage repetitions?
 - Make sure there are opportunities for repetition
 - Similar sounding words - create confusion - create a need to repeat the



Pilot Experiment - Stimulus List

Monday, January 23, 2023

Janitta & Samantha

Stimuli Lists

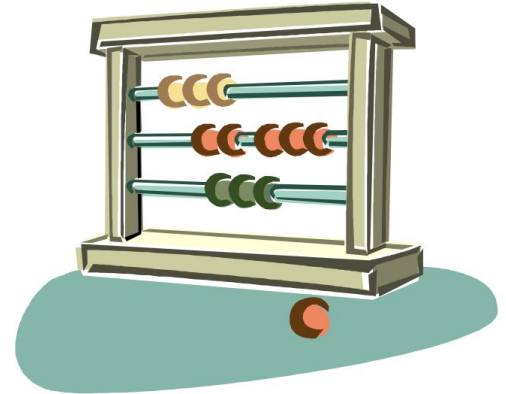
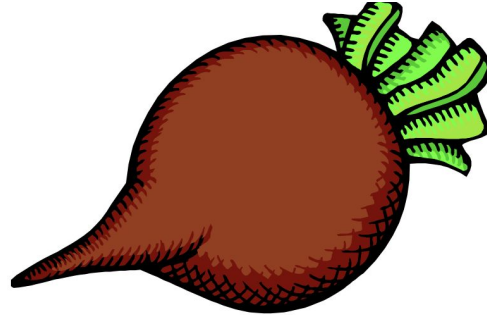
Stimuli will involve

- High frequency words
- Objects (easily visualized)
- Use of minimal or pseudo-minimal pairs
- Phonetic variations confusable by different L1 speakers
 - Low back vowel merger, e.g. Don, Dawn
 - Flapping, e.g. Writer, Rider
 - Word final devoicing, e.g. Code, coat

*include non-target words

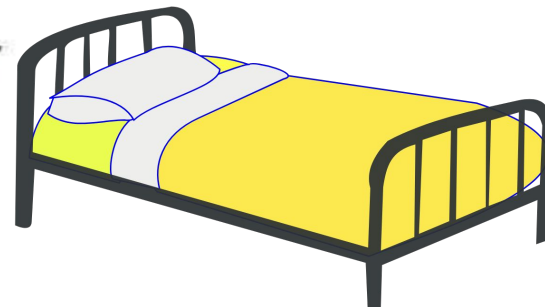
Stimuli List - Version 1

- Beet (word-final devoicing)
- Bead
- Pick
- Pig
- Cord
- Court
- Price
- Prize
- Petal (flapping)
- Pedal
- Adam
- Atom



Stimuli List - Version 2

- Cart (word-final devoicing)
- Card
- Rope
- Robe
- Bet
- Bed
- Code
- Coat
- Writer (flapping)
- Rider
- Title
- Tidal



Guess Who Version 1 Script (Short)

Task - Natural Conversation

Stimuli Version 1

P1: Okay, P2, does your character have a **pick**?

P2: Hmm no, my character does not have a **pick**... does your character have a **pig**?

P1: Sorry, did you say **pick**?

P2: No, the animal **pig**.

P1: Yes! My character does have a **pig**. Does your character have a **pedal**?

P2: Do you mean a rose **petal** or a bike **pedal**?

P1: Oh, a bike **pedal**!

P2: Ah okay, yes my character has a **pedal**.

P1: Okay - does your character also have a **bough**?

P2: Did you say a **bow** that you tie around a present?

P1: No, I meant **bough** as in a tree branch.

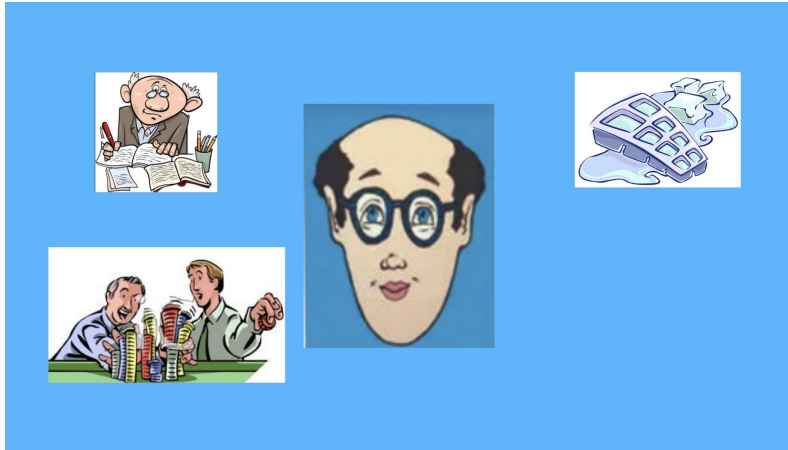
P2: Then yes! My character has a **bough**.

P1: So your character has a **bough** and a **pedal**. I need to figure out what the last object is!

....

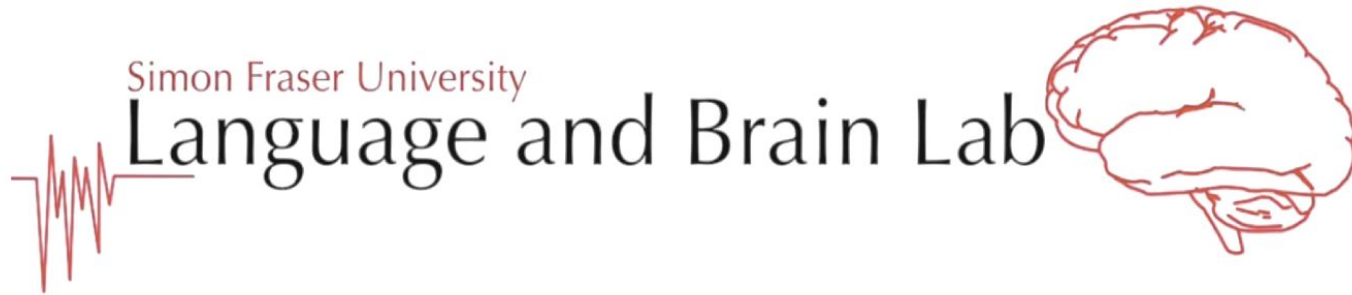
Version 2 Script (Longer)

https://docs.google.com/document/d/1ZqwS0J6xyseFZzX6ye8SPW6MsF3j6ig_XXd3ASBwcZU/edit?usp=sharing



Feedback

- Increase variation
- Flapping - medal/metal, writer/rider,
 - Challenge of finding participants who do or do not “flap” - do we choose participants who only “flap”, or don’t “flap”
- bough/bow not great bc of pronunciation of bow
- Balance contrast bw pairs generally
- Focus on devoicing for demo
- Fricatives instead of stops, ie. bus/buzz
- Issue of aspiration - ie. bag/back
- **Moving forward: Final consonant devoicing with fricatives (ie. bus/buzz) and flapping**
- **Demo a diapix scene with sentences - WH questions**
- **For recording demo:**
 - **2 cameras**
 - **2 mics**
 - **2 computers/2 sets of stimuli**



Pilot Experiment - Mock Task

Thursday, February 2, 2023

Janitta & Samantha

Stimuli List - Version 1 (Fricatives & Flapping)

- Bus / buzz
- Price / prize
- Rice / rise
- Fuss / fuzz
- Safe / save
- Leaf / leave
- Fife / five
- Surf / serve
- Ice / eyes
- Batch / badge
- Rich / ridge
- ~~Lunch / lunge~~
- Metal / medal
- Petal / pedal
- Title / tidal
- Writer / rider
- Latter / ladder
- Atom / Adam
- Shutter / shudder
- Litre / leader
- Batter / badder
- Butter / budder
- ~~Dapper / dabber~~

Word Frequency - <https://www.english-corpora.org/coca/>

- *Note: American English, 1 billion words
- The corpus contains more than **one billion words** of text (25+ million words each year 1990-2019) from eight genres: spoken, fiction, popular magazines, newspapers, academic texts, and (with the **update in March 2020**): TV and Movies subtitles, blogs, and other web pages.

Bus: 49, 990	Buzz: 12, 322
Price: 12, 940	Prize: 24, 808
Lunch: 51, 250	Lunge: 1, 187

Metal: 40, 542	Medal: 12, 158
Latter: 28, 856	Ladder: 10, 390
Butter: 28, 812	Budder: -