EXS 297 Motor Behavior
Voice RT
(as part of the Reaction Time Lab on pp. 9-10 of Lab Manual)

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Introduction

Evidence has already been discussed to explain the effects of response complexity on reaction time (Henry & Rogers, 1960). How does response complexity relate to speech articulation? There are numerous examples in sport and in every day life that individuals must respond orally to others (or to some external stimulus) as quickly as possible. Maybe a defender is trying to notify a teammate about a play that she sees developing by the offense so that her teammates can be prepared. Perhaps a passenger riding in a car needs to notify the driver about something he sees in the road ahead. How fast is your voice RT? What factors affect your voice RT to could cause you to respond faster, or slower? It is the purpose of this lab to measure voice RT under various response complexities, by manipulating the number of syllables, to examine these effects.

Equipment

Voice Response Time Control (Lafayette Model 63040)

Manual button response in Input 1 (to trigger stimulus); Voice microphone in Input 2
Settings: Latch, Separate

Stop Clock (Lafayette Model 54030)

(connect wires from RUN to Channel 3 output of Voice RT control)

Procedures (replacing Response Type Station)

I. Simple Response (one syllable)
   - A. Practice saying "Bi" as quickly as possible.
   - B. Turn on the microphone. Focus on the light just above "Input 1" on the front of the Voice RT box. Your partner will be holding the remote button around to the side and without you watching, will start the trial by pressing the button. Your partner will give you a warning stimulus "Ready, inhale". This will be followed by a 2-4 second preparatory interval As soon as you see the light turn on, say "Bi" as quickly possible. After the trial, press the reset switch.
   - C. Once you feel comfortable after a few practice trials, ask your partner to give you 10 trials and to record the 10 RT values. Redo any trials less than .100 and those significantly longer than others.

II. Complex response (two syllables-different)
   - A. Practice saying "Bi - Te" as quickly as possible.
   - B. Follow procedures I.B and C above using "Bi – Te" as your response.

III. More complex response (three syllables- different)
   - A. Practice saying "Bi – Te - Ga" as quickly as possible.
   - B. Follow procedures I.B and C above using "Bi – Te - Ga" as your response.

V. When finished, be sure to **TURN OFF the MICROPHONE.**

Individual RT data (sec)

Response Condition	Trials 1	2	3	4	5	6	7	8	9	10	Mean
Simple:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Complex:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
More Complex:	____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Data Analysis

1. Calculate your average voice RT for each set of 10 trials above.
2. Plot your RT means on a new bar graph with RT on the vertical axis and the different response conditions along the horizontal axis.

Discussion Question

In place of question 2 on the top of page 50, answer the following:

2. Compare the voice RTs under the various conditions. Were they about the same (within 20 msec) or different? If different, which condition was fastest? Slowest? From what we know about the effects of response complexity on voice reaction time, explain your results (compare your results to the CUSF pattern discussed in class).