**Instructions**

**Requirements:**

The script is in python 2.7, to run it on your machine you need psychopy, pyaudio, future packages. For full functionality, stunclient is also needed.

The script is expected

**Usage:**

It can be run simply from terminal, as:

$ python pilotHyper.py [options]

The main options to use (type “$ python pilotHyper.py –help” to see all of them):

– NAT: Flag for NAT (firewall) traversal, also sets who initiates the initial handshake procedure between computers. 0 = don’t initiate, 1 = initiate. The initiater also needs to set target IP! Default is 0.

--IP: If NAT =1, IP is needed in IPv4 form

--CHUNK: Size of audio packet in frames (for bytes, multiply by two), default is reasonable (512)

--BUFFER: Size of the audio buffer for output. Set it at 8 for seamless transmission (default is somewhat stricter with 4). There is a trade-off always: the smaller the buffer, the smaller the delay, but the crappier the output (because of frequent under/overflows)

–ROLE: Whether your subject is the one starting the stories or not. 0 = starter, 1 = follower. Default is 0.

--LOGTTL: Whether the script listens to (and records and timestamps) TTL signals or not. 0 = not (for purely behavioral practice trial or testing), 1 = TTL recording. Default is 1.

--WHICHSEED: Which story topic is chosen for the trial, integer between 0 and 2. 0 = alien contact, 1 = child to POTUS, 2 = family trouble

--TRIALTYPE: Flag for trial type: 0 = Joint story, 1 = Individual story. Default = 0.

Typically you would run a study trial with high prioirity, by setting its niceness level. So a more-or-less standard command for a practice trial would be:

**BEHAVIORAL PRACTICE**

First computer:

(samsung)

$ sudo nice -n -10 python pilotHyper.py –-NAT 1 –-IP 10.8.175.238 -–CHUNK 512 -–BUFFER 8 –-ROLE 1 –-LOGTTL 0 –WHICHSEED 2

Second:

(HP)

$ sudo nice -n -10 python pilotHyper.py –-NAT 0 -–CHUNK 512 -–BUFFER 8 –-ROLE 0 –-LOGTTL 0 –WHICHSEED 2

**FMRI FIRST RUN**

First computer:

(samsung)

$ sudo nice -n -10 python pilotHyper.py –-NAT 1 –-IP 10.8.175.238 -–CHUNK 512 -–BUFFER 8 –-ROLE 1 –-LOGTTL 1 –WHICHSEED 0

Second:

(HP)

$ sudo nice -n -10 python pilotHyper.py –-NAT 0 -–CHUNK 512 -–BUFFER 8 –-ROLE 0 –-LOGTTL 1 –WHICHSEED 0

**FMRI FIRST RUN**

First computer:

(samsung)

$ sudo nice -n -10 python pilotHyper.py –-NAT 1 –-IP 10.8.175.238 -–CHUNK 512 -–BUFFER 8 –-ROLE 1 –-LOGTTL 1 –WHICHSEED 1

Second:

(HP)

$ sudo nice -n -10 python pilotHyper.py –-NAT 0 -–CHUNK 512 -–BUFFER 8 –-ROLE 0 –-LOGTTL 1 –WHICHSEED 1

SUDO PASSWORD:

hyperscanning