Gmail by Google

Alex Schlegel <schlegel@gmail.com>

LocalGlobal resurrected?

4 messages

Peter U. Tse <Peter.U.Tse@dartmouth.edu> Tue, Jan 20, 2015 at 1:27 PM
To: Alex Schlegel <schlegel@gmail.com>, "Peter J. Kohler" <pjkohler@stanford.edu>, Liwei Sun <Liwei.Sun.GR@dartmouth.edu>

Alex and LiWei, it does not appear that there was a paper draft yet, or I no longer have it. But Peter was planning to write this up. I am attaching some notes I have from emails Peter sent me about the project. And I am attaching the 4 figures that Peter sent me. It would be great if this could resurrect that project and paper.

Peter

****

Peter Ulric Tse, Professor
Department of Psychological and Brain Sciences
H. B. 6207, Moore Hall, Dartmouth College, Hanover NH 03755
Tel: (603) 646-4014; Fax: (603) 646-1419
http://www.dartmouth.edu/~psych/people/faculty/tse.html

6 attachments

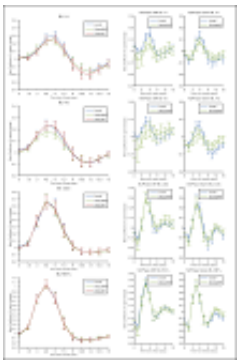

fig4.png
885K

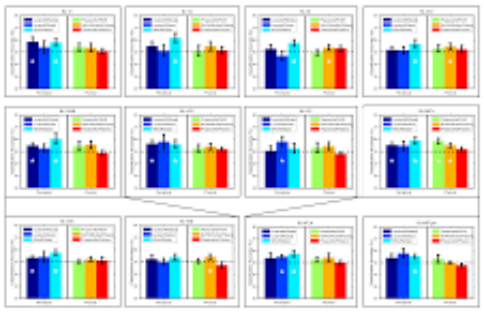

fig3.png
417K

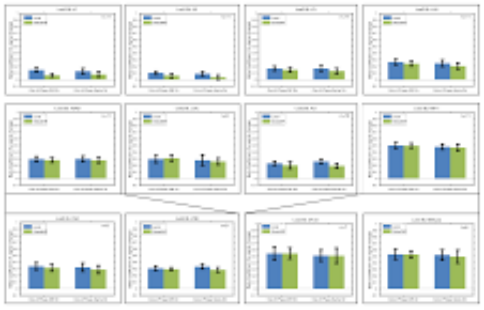

fig2.png
337K

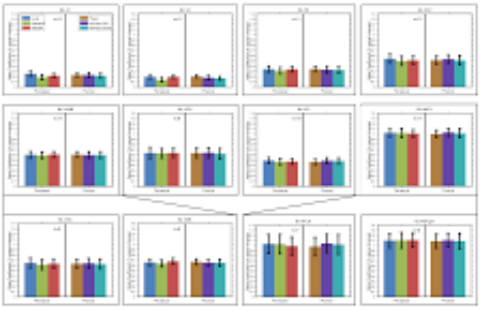

fig1.png
297K

Zaretskaya, Anstis, and Bartels 2013.pdf
1722K

PeterKohlerLocalGlobal.doc
42K

Alex Schlegel <schlegel@gmail.com> Sat, Jan 24, 2015 at 2:04 PM
To: "Peter J. Kohler" <pjkohler@stanford.edu>
Cc: Liwei Sun <Liwei.Sun.GR@dartmouth.edu>

Hey Peter,

I did some testing and it seems like this method could theoretically work with an event-related design. Can you send me some more info about the local/global data? Specifically:

1) About how many events per run and time in between each event?

2) How many runs per subject? How many subjects?

3) The ideal for analyzing this data would be preprocessed functional data files for each run, attribute files for each run, and retinotopic masks for each subject in the same functional space. I assume you have all of those somewhere. Can you give me a little help in finding them?

Thanks!
Alex
[Quoted text hidden]

Peter Jes Kohler <pjkohler@stanford.edu> Tue, Feb 3, 2015 at 2:50 PM
To: Alex Schlegel <schlegel@gmail.com>, Liwei Sun <liwei.sun.gr@dartmouth.edu>

Hi Alex,

Sorry for the delay in getting back to you.

I've cc'ed Liwei, since he has also been asking about this.

The top-level folder is /mnt/tsestorage/peterk/LOCAL_GLOBAL/NEW_LOCAL_GLOBAL/

1)

The number of events per run varied substantially, because it was driven by subjects perception from trial to trial. The number of events per run can be seen in this spreadsheet: ${TOP_LEVEL}/LvsG_complete_stats.ods - focus on the first four columns, and note that the numbers are actually seconds of data, not number of events (for some weird reason). Each event was 3 seconds, so 9 = 3 events. I included all runs in my main GLM, but for the classification stuff I left out runs where subjects had 3 events or less in one of the conditions (the cells not marked in yellow).

It forget exactly how we did the timing, but we ran it as a fast event-related design, with conditions presented in random order and jitter in the ISIs. I do know that there were 48 presentations in total per run, each lasting 3

seconds. Note that in the spreadsheet, and the LvsG attribute files (see below), the total number of events may sometimes be less than 48, because we did not include events in which subjects did not make a button press indicating whether the button press was local or global. For DWs run 8 and 9, for example, the 3 numbers add up to 141=47 events. This means that in both those runs, DW did not make a response on one of the events.

2)

11 subjects in total. 10 subjects had 9 runs, KC had 8 runs.

3)

Preprocessed runs would be in: ${TOP_LEVEL}/${SUB_ID}/AFNI_PROC/LvsG_all/${SUB_INITIALS}.results, and would be labeled pb02.${SUB_INITIALS}* (pb01.${SUB_INITIALS}* if you do not want scaling). For subject DW, SUB_ID is 04dec07DW, and SUB_INITIALS is dw. Same convention for everyone. Files are in AFNIs +orig format, so you'll have to convert them to NIFTIs using 3dAFNItoNIFTI.

Retinotopic masks are in ${TOP_LEVEL}/${SUB_ID}/AFNI_PROC/ROIs. The ones named *_al_done.nii should be aligned to the functional data and be ready to go. Let me know if you find that they are not.

Attribute files are in ${TOP_LEVEL}/att_files/finished/1Dfiles. There are tons of different ones, each splitting the events in different ways. All of them exists both as a single file containing all runs, and as run-wise attribute files. The two main ones are:

LvsG: glb_al, glb_unal, local: Perceptual Local vs Global: (1) aligned global, (2) unaligned global and (3) local.
PHYS: al, una1, una2: Physical stimulus: aligned(1), unaligned in-phase(2), unaligned out-of-phase(3).

The idea is, of course, that analyzing the events by the physical stimulus on the screen (PHYS) serves as a control in which you would hope to get no effect, or at least a weaker effect, than when analyzing your events based on perception (LvsG).

I am not sure the other ones make sense, because further splitting the data makes for very few events. But let me know if you need me to decipher any of the other attribute files.

I hope this helps. Please let me know if you need anything else. Liwei, you were asking for "code", but since that is a very broad question, it might be better if we talk about what you wanna do with the data.

Best,

Peter
[Quoted text hidden]

Peter Jes Kohler <pjkohler@stanford.edu> Tue, Feb 3, 2015 at 5:10 PM
To: Alex Schlegel <schlegel@gmail.com>, Liwei Sun <liwei.sun.gr@dartmouth.edu>

I just double-checked, and each stimulus was on the screen for 1.5 seconds (1 TR), not 3 seconds as I said before.

Also, you may notice that there were 10 TRs at the end of each trial where no stimulus was presented, that is, the last stimulus was shown at the 216th TR, but we collected 226 TRs. I don't know why we did this, but that was definitively the way we ran the experiment. You could consider getting rid of some of the TRs at the end, of just include them in the fixation baseline, which is what I did.

Best,

Peter
[Quoted text hidden]