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letters

Alex Holcombe <aoholcombe@gmail.com> Tue, Mar 26, 2019 at 4:14 PM
To: Michael McCloskey <Michael.McCloskey@jhu.edu>

hi Mike,
This is the paper I was trying to think of finding better temporal order judgments and simultaneity judgments in the left visual field https://jov.arvojournals.org/article.aspx?articleid=2213271

The Psyc 101 single-presentation of two letters or two words results include some that might be relevant to test the patient, or to inform interpretation of what you've already done - one relevant condition is when I presented two letters vertically arrayed (configurations shown in the attached pic) and found a 13 percentage points advantage for the upper position , that decreased to a 2 percentage points advantage when the letters were rotated -90 deg so they faced upward. About vertically arrayed letters, is there some hope that the patient will be more tolerant of letters rotated by just 90 deg? (this is occasionally seen in the world e.g. in movie theater marquee text). With two three-letter words simultaneously presented top and bottom we found a very big (33 percentage points) upper position advantage. Of course, there is plenty of individual variation in this (each dot in the attached plot is a subject) but a surprisingly small (by psychology task psychometric standards) percentage of Ss show the opposite direction.

In summary, if your patient will tolerate 90 deg rotated letters in a vertical array (to face up or face down) then we could potentially confirm that his vertical visual field asymmetry is related to reading order. That's exciting to me to begin to narrow down where in the brain is processing related to reading order that kicks in with spatially separated letters. At present I am unaware of any neuropsychological evidence suggestive of such a process; I only know about object-based neglect where the beginning or end of words (not spatially separated letters) are neglected.

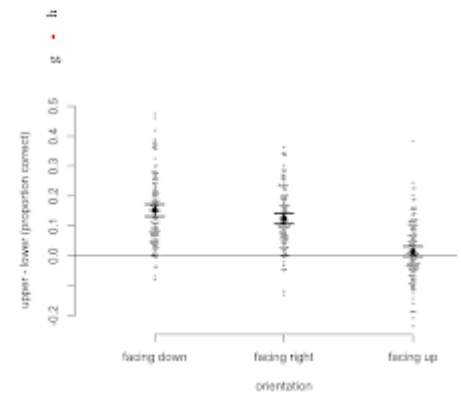
To recap my RSVP and my single-shot results, we now have evidence in neuro-typicals that there is an across-word semi-automatic reading process, but I am yet to link this up with any substantive from any other paradigm (besides just the fact that if people are confronted with a large array of stimuli, they tend to start on the left possibly due to cognitive choice because they have to start somewhere), yours is the first promising possible connection.

Looking forward to hearing your thoughts
Alex

[Quoted text hidden]

2 attachments

Screen Shot 2019-03-26 at 1.54.55 pm.png
134K



Screen Shot 2019-03-26 at 1.56.53 pm.png
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