

## Supplemental Material S2. Language testing results.

| Participant | Philadelphia Naming Test* |          |          | Pyramids<br>and Palm<br>Trees** |        | PALPA 02*** <sup>a</sup> |                    | PALPA 15 <sup>b</sup> |         | PALPA<br>49 <sup>c</sup> | PALPA<br>50 <sup>d</sup> |
|-------------|---------------------------|----------|----------|---------------------------------|--------|--------------------------|--------------------|-----------------------|---------|--------------------------|--------------------------|
|             | Total<br>Correct          | s-weight | p-weight | 3-Picture                       | Same   | Different                | Written<br>Overall | Auditory<br>Overall   | Overall | Overall                  |                          |
| S1          | 122                       | 0.0232   | 0.0257   | 0.942                           | 0.917  | 0.556                    | 0.533              | 0.85                  | 0.767   | 0.733                    |                          |
| S2          | 3                         | 0.0001   | 0.0113   | 0.885                           | 0.972  | 0.694                    | 0.483              | 0.733                 | 0.7     | 0.833                    |                          |
| S3          | 142                       | 0.0400   | 0.0163   | 0.96                            | 1      | 0.9444                   | 0.62               | 0.98                  | 0.82    | 0.95                     |                          |
| S4          | 72                        | 0.0219   | 0.0194   | 0.7885                          | 0.9444 | 0.9722                   | 0.5                | 0.9167                | 0.6667  | 0.5333                   |                          |
| S5          | 58                        | 0.0151   | 0.0151   | 0.94                            | 0.97   | 1                        | 0.47               | 0.85                  | 0.72    | 0.82                     |                          |
| S6          | 156                       | 0.0331   | 0.0282   | 0.9615                          | 1      | 1                        | 0.9833             | 1                     | 0.9333  | 0.8667                   |                          |
| S7          | 144                       | 0.0275   | 0.0238   | 0.9615                          | 0.9167 | 0.9722                   | 0.75               | 0.8833                | 0.8167  | 0.8167                   |                          |
| S8          | 141                       | 0.0275   | 0.0375   | 0.923                           | 0.972  | 0.972                    | 0.833              | 0.983                 | 0.883   | 0.9                      |                          |
| S9          | 110                       | 0.0213   | 0.0263   | 0.8846                          | 0.1389 | 0.8056                   | 0.5833             | 0.7                   | 0.7833  | 0.7833                   |                          |
| S10         | 45                        | 0.0151   | 0.0225   | 0.9038                          | 0.9722 | 0.9444                   | 0.5667             | 0.9833                | 0.7833  | 0.8167                   |                          |
| S11         | 137                       | 0.0331   | 0.0182   | 0.7692                          | 0.8611 | 1                        | 0.6833             | 1                     | 0.8667  | 0.9167                   |                          |
| S12         | 86                        | 0.0182   | 0.0219   | 0.9615                          | 0.9167 | 1                        | 0.6667             | 0.9333                | 0.7833  | 0.75                     |                          |
| S13         | 133                       | 0.0275   | 0.0213   | 0.9038                          | 1      | 1                        | 0.55               | 0.7833                | 0.7333  | 0.5333                   |                          |
| S14         | 74                        | 0.0213   | 0.0126   | 0.8846                          | 1      | 0.9722                   | 0.6                | 0.9833                | 0.8166  | 0.6666                   |                          |
| S15         | 124                       | 0.0257   | 0.0207   | 0.923                           | 0.8611 | 0.5555                   | 0.8333             | 0.8333                | 0.6     | 0.8166                   |                          |
| S16         | 85                        | 0.0163   | 0.0288   | 0.9615                          | 1      | 0.9722                   | 0.8666             | 0.9833                | 0.9166  | 0.9833                   |                          |
| S17         | 141                       | 0.0356   | 0.0194   | 0.9038                          | 1      | 1                        | 0.8833             | 1                     | 0.9833  | 0.9667                   |                          |
| S18         | 141                       | 0.0263   | 0.0275   | 0.9615                          | 1      | 1                        | 0.95               | 0.9833                | 0.9333  | 0.95                     |                          |
| S19         | 159                       | 0.03     | 0.035    | 0.9038                          | 0.9444 | 1                        | 0.8833             | 0.9167                | 0.9167  | 0.95                     |                          |
| S20         | 74                        | 0.02     | 0.0151   | 0.8269                          | 1      | 0.83                     | 0.4                | 0.9                   | 0.5667  | 0.62                     |                          |
| S21         | 88                        | 0.0219   | 0.0157   | 0.9039                          | 1      | 0.67                     | 0.5667             | 0.85                  | 0.8667  | 0.85                     |                          |
| S22         | 41                        | 0.0369   | 0.0244   | 0.9423                          | 0.8611 | 0.8333                   | 0.65               | 0.8167                | 0.7     | 0.7                      |                          |
| S23         | 157                       | 0.04     | 0.0255   | 1                               | 0.9167 | 1                        | 0.8833             | 0.8333                | 0.8833  | 0.9167                   |                          |
| S24         | 135                       | 0.0388   | 0.0151   | 0.9615                          | 1      | 1                        | 0.7833             | 1                     | 0.85    | 0.85                     |                          |
| S25         | 130                       | 0.0263   | 0.03     | 0.8461                          | 1      | 0.9722                   | 0.6167             | 0.9667                | 0.7     | 0.6833                   |                          |
| S26         | 119                       | 0.025    | 0.025    | 0.9423                          | 0.8333 | 0.6944                   | 0.4833             | 0.9167                | 0.8     | 0.7333                   |                          |

|                 |                   |                      |                      |                |                |                |                |                |              |               |
|-----------------|-------------------|----------------------|----------------------|----------------|----------------|----------------|----------------|----------------|--------------|---------------|
| <b>S27</b>      | 92                | 0.0157               | 0.0257               | 0.9423         | 0.9444         | 0.8333         | 0.6167         | 0.85           | 0.7333       | 0.75          |
| <b>S28</b>      | 132               | 0.0288               | 0.0213               | 0.9615         | 1              | 0.8889         | 0.55           | 0.9167         | 0.8833       | 0.8667        |
| <b>S29</b>      | 161               | 0.04                 | 0.0263               | 0.9423         | 1              | 1              | 0.78           | 0.9167         | 0.9          | 0.8833        |
| <b>S30</b>      | 98                | 0.0213               | 0.02                 | 0.9615         | 1              | 1              | 0.65           | 0.1            | 0.8667       | 0.7667        |
| <b>S31</b>      | 121               | 0.0238               | 0.0263               | 0.9038         | 0.9167         | 1              | 0.90           | 0.9667         | 0.9333       | 0.9333        |
| <b>S32</b>      | 106               | 0.0238               | 0.0176               | 0.9615         | 0.9167         | 0.4722         | 0.6167         | 0.65           | 0.9167       | 0.9667        |
| <b>S33</b>      | 119               | 0.0207               | 0.0282               | 0.9615         | 1              | 1              | 0.7667         | 0.95           | 0.65         | 0.75          |
| <b>S34</b>      | 69                | 0.0182               | 0.0157               | 0.9615         | 0.8889         | 0.8611         | 0.5            | 0.9            | 0.7          | 0.6833        |
| <b>S35</b>      | 103               | 0.0188               | 0.02                 | 0.8846         | 0.8055         | 0.6389         | 0.8            | 0.8            | 0.85         | 0.8833        |
| <b>S36</b>      | 156               | 0.0388               | 0.0213               | 1              | 0.75           | 0.8889         | 0.8333         | 0.9667         | 0.8167       | 0.7833        |
| <b>S37</b>      | 148               | 0.0394               | 0.0219               | 0.9423         | 0.9444         | 0.9722         | 0.8            | 0.9833         | 0.7333       | 0.8333        |
| <b>S38</b>      | 147               | 0.0306               | 0.0244               | 0.9038         | 1              | 0.6389         | 0.6667         | 0.9833         | 0.7667       | 0.65          |
| <b>S39</b>      | 145               | 0.0388               | 0.0213               | 0.9230         | 0.9722         | 1              | 0.95           | 0.9833         | 0.9          | 0.7833        |
| <b>S40</b>      | 136               | 0.0275               | 0.0263               | 0.9615         | 0.9444         | 0.9444         | 0.5333         | 0.7333         | 0.7667       | 0.6167        |
| <b>S41</b>      | 154               | 0.04                 | 0.0188               | 0.9038         | 0.8611         | 0.9444         | 0.8            | 0.95           | 0.8833       | 0.9           |
| <b>S42</b>      | 8                 | 0.0007               | 0.0157               | 0.8846         | 0.7778         | 0.9167         | 0.5333         | 0.8667         | 0.5667       | 0.63          |
| <b>S43</b>      | 125               | 0.0219               | 0.0306               | 0.7692         | 1              | 0.9722         | 0.5833         | 0.6167         | 0.6667       | 0.5           |
| <b>S44</b>      | 89                | 0.0188               | 0.0213               | 0.9423         | 0.8055         | 0.9444         | 0.6333         | 0.9333         | 0.7667       | 0.7           |
| <b>AVG (SD)</b> | 111.95<br>(39.92) | 0.02526<br>(0.00966) | 0.02255<br>(0.00593) | 0.92<br>(0.05) | 0.92<br>(0.14) | 0.89<br>(0.15) | 0.69<br>(0.15) | 0.89<br>(0.09) | 0.8<br>(0.1) | 0.8<br>(0.13) |

\*Philadelphia Naming Test (PNT; Roach et al., 1996); \*\*Pyramids and Palm Trees (PPT; Howard & Patterson, 1992); \*\*\*PALPA (Psycholinguistic Assessments of Language Processing in Aphasia; Kay et al., 1996): a – Minimal Pair Same/Different Judgement, b – Word Rhyme Judgement, c – Auditory Synonym Judgement, d – Written Synonym Judgement

## References

- Howard, D., & Patterson, K. (1992). *The Pyramids and Palm Trees Test: A test of semantic access from words and pictures*. Pearson Assessment.
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- Roach, A., Schwartz, M. F., Martin, N., Grewal, R. S., & Brecher, A. (1996). The Philadelphia Naming Test: Scoring and rationale. *Clinical Aphasiology*, 24, 121–133.  
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