**Supplemental Materials**

**Appendix A.** Search terms in PubMed

|  |  |  |
| --- | --- | --- |
| **Diagnosis** | Pick’s diseasefrontotemporal dementiafrontotemporal lobar dementiafrontal lobe dementiadementia of frontal lobe typefrontotemporal lobar degenerationFTD | semantic dementiasemantic variant PPAprogressive nonfluent aphasiaPNFA primary progressive aphasiaprogressive aphasialogopenic |
| **Cognition** | neuropsycholog\* cognit\*attentionorientationprocessingspeedsequencingexecutivedecision-makingreasoning WCST StroopTrail Making TestFABHayling fluencyCOWATvocabularyexpressivespeech  |  | languagenaming receptivecomprehensionnamingspellingverbalreadingwriting memorylearningrecallrecognition matchingHVLTvisualvisuo\*percept\*VOSPRey Benton | emot\*affectsocio\*social perceptionfacialemotion recogni\*emotion\* processingattribution biasprosodytheory of mind ToMTASITFaux pasolfact\*smellchemosens\*flavourodorodour |
| **Year** | 1980 – present (*search last updated on March 24, 2018*) |
| **Human studies?** | Yes  |
| **Language** | English |

**Appendix B.** Reference list of publications included in the current meta-analysis

Amici, S., Gorno-Tempini, M. L., Ogar, J. M., Dronkers, N. F., & Miller, B. L. (2006). An overview on primary progressive aphasia and its variants. *Behavioural Neurology*, *17*(2), 77–87. <https://doi.org/10.1155/2006/260734>

Ash, S., Evans, E., O’Shea, J., Powers, J., Boller, A., Weinberg, D., … Grossman, M. (2013). Differentiating primary progressive aphasias in a brief sample of connected speech. *Neurology*, *81*(4), 329–336. <https://doi.org/10.1212/WNL.0b013e31829c5d0e>

Ballard, K. J., Savage, S., Leyton, C. E., Vogel, A. P., Hornberger, M., & Hodges, J. R. (2014). Logopenic and nonfluent variants of primary progressive aphasia are differentiated by acoustic measures of speech production. *PloS One*, *9*(2), e89864. <https://doi.org/10.1371/journal.pone.0089864>

Bisenius, S., Mueller, K., Diehl-Schmid, J., Fassbender, K., Grimmer, T., Jessen, F., … FTLDc study group. (2017). Predicting primary progressive aphasias with support vector machine approaches in structural MRI data. *NeuroImage. Clinical*, *14*, 334–343. <https://doi.org/10.1016/j.nicl.2017.02.003>

Bonner, M. F., Vesely, L., Price, C., Anderson, C., Richmond, L., Farag, C., … Grossman, M. (2009). Reversal of the concreteness effect in semantic dementia. *Cognitive Neuropsychology*, *26*(6), 568–579. <https://doi.org/10.1080/02643290903512305>

Brambati, S. M., Ogar, J., Neuhaus, J., Miller, B. L., & Gorno-Tempini, M. L. (2009). Reading disorders in primary progressive aphasia: A behavioral and neuroimaging study. *Neuropsychologia*, *47*(8–9), 1893–1900. <https://doi.org/10.1016/j.neuropsychologia.2009.02.033>

Charles, D., Olm, C., Powers, J., Ash, S., Irwin, D. J., McMillan, C. T., … Grossman, M. (2014). Grammatical comprehension deficits in non-fluent/agrammatic primary progressive aphasia. *Journal of Neurology, Neurosurgery, and Psychiatry*, *85*(3), 249–256. <https://doi.org/10.1136/jnnp-2013-305749>

Crutch, S. J., & Warrington, E. K. (2006). Partial knowledge of abstract words in patients with cortical degenerative conditions. *Neuropsychology*, *20*(4), 482–489. <https://doi.org/10.1037/0894-4105.20.4.482>

Deleon, J., Gesierich, B., Besbris, M., Ogar, J., Henry, M. L., Miller, B. L., … Wilson, S. M. (2012). Elicitation of specific syntactic structures in primary progressive aphasia. *Brain and Language*, *123*(3), 183–190. <https://doi.org/10.1016/j.bandl.2012.09.004>

Flanagan, E. C., Tu, S., Ahmed, S., Hodges, J. R., & Hornberger, M. (2014). Memory and orientation in the logopenic and nonfluent subtypes of primary progressive aphasia. *Journal of Alzheimer’s Disease: JAD*, *40*(1), 33–36. <https://doi.org/10.3233/JAD-131448>

Foxe, D. G., Irish, M., Hodges, J. R., & Piguet, O. (2013). Verbal and visuospatial span in logopenic progressive aphasia and Alzheimer’s disease. *Journal of the International Neuropsychological Society*, *19*(3), 247–253. <https://doi.org/10.1017/S1355617712001269>

Foxe, D., Leyton, C. E., Hodges, J. R., Burrell, J. R., Irish, M., & Piguet, O. (2016). The neural correlates of auditory and visuospatial span in logopenic progressive aphasia and Alzheimer’s disease. *Cortex*, *83*, 39–50. <https://doi.org/10.1016/j.cortex.2016.07.003>

Galantucci, S., Tartaglia, M. C., Wilson, S. M., Henry, M. L., Filippi, M., Agosta, F., … Gorno-Tempini, M. L. (2011). White matter damage in primary progressive aphasias: A diffusion tensor tractography study. *Brain*, *134*(10), 3011–3029. <https://doi.org/10.1093/brain/awr099>

Gefen, T., Wieneke, C., Martersteck, A., Whitney, K., Weintraub, S., Mesulam, M. M., & Rogalski, E. (2013). Naming vs knowing faces in primary progressive aphasia: A tale of 2 hemispheres. *Neurology*, *81*(7), 658–664. <https://doi.org/10.1212/WNL.0b013e3182a08f83>

Golden, H. L., Clark, C. N., Nicholas, J. M., Cohen, M. H., Slattery, C. F., Paterson, R. W., … Warren, J. D. (2017). Music perception in dementia. *Journal of Alzheimer’s Disease: JAD*, *55*(3), 933–949. <https://doi.org/10.3233/JAD-160359>

Goll, J. C., Kim, L. G., Hailstone, J. C., Lehmann, M., Buckley, A., Crutch, S. J., & Warren, J. D. (2011). Auditory object cognition in dementia. *Neuropsychologia*, *49*(9), 2755–2765. <https://doi.org/10.1016/j.neuropsychologia.2011.06.004>

Gorno-Tempini, M. L., Dronkers, N. F., Rankin, K. P., Ogar, J. M., Phengrasamy, L., Rosen, H. J., … Miller, B. L. (2004). Cognition and anatomy in three variants of primary progressive aphasia. *Annals of Neurology*, *55*(3), 335–346. <https://doi.org/10.1002/ana.10825>

Henry, M. L., Wilson, S. M., Babiak, M. C., Mandelli, M. ., Beeson, P. M., Miller, Z. A., & Gorno-Tempini, M. L. (2016). Phonological processing in primary progressive aphasia. *Journal of Cognitive Neuroscience*, *28*(2), 210–222. <https://doi.org/10.1162/jocn_a_00901>

Josephs, K. A., Whitwell, J. L., Duffy, J. R., Vanvoorst, W. A., Strand, E. A., Hu, W. T., … Petersen, R. C. (2008). Progressive aphasia secondary to Alzheimer disease vs FTLD pathology. *Neurology*, *70*(1), 25–34. <https://doi.org/10.1212/01.wnl.0000287073.12737.35>

Leyton, C. E., Hsieh, S., Mioshi, E., & Hodges, J. R. (2013). Cognitive decline in logopenic aphasia: More than losing words. *Neurology*, *80*(10), 897–903. <https://doi.org/10.1212/WNL.0b013e318285c15b>

Leyton, Cristian E. (2014). Verbal repetition in primary progressive aphasia and Alzheimer’s disease. *Journal of Alzheimer’s Disease*, *41*(2), 575–585.

Leyton, Cristian E., Britton, A. K., Hodges, J. R., Halliday, G. M., & Kril, J. J. (2016). Distinctive pathological mechanisms involved in primary progressive aphasias. *Neurobiology of Aging*, *38*, 82–92. <https://doi.org/10.1016/j.neurobiolaging.2015.10.017>

Leyton, Cristian E., Hodges, J. R., Piguet, O., & Ballard, K. J. (2017). Common and divergent neural correlates of anomia in amnestic and logopenic presentations of Alzheimer’s disease. *Cortex; a Journal Devoted to the Study of the Nervous System and Behavior*, *86*, 45–54. <https://doi.org/10.1016/j.cortex.2016.10.019>

Leyton, Cristian E., Piguet, O., Savage, S., Burrell, J., & Hodges, J. R. (2012). The neural basis of logopenic progressive aphasia. *Journal of Alzheimer’s Disease: JAD*, *32*(4), 1051–1059. <https://doi.org/10.3233/JAD-2012-121042>

Leyton, Cristian E., Villemagne, V. L., Savage, S., Pike, K. E., Ballard, K. J., Piguet, O., … Hodges, J. R. (2011). Subtypes of progressive aphasia: Application of the International Consensus Criteria and validation using β-amyloid imaging. *Brain: A Journal of Neurology*, *134*(Pt 10), 3030–3043. <https://doi.org/10.1093/brain/awr216>

Mack, J. E., Chandler, S. D., Meltzer-Asscher, A., Rogalski, E., Weintraub, S., Mesulam, M. M., & Thompson, C. K. (2015). What do pauses in narrative production reveal about the nature of word retrieval deficits in PPA? *Neuropsychologia*, *77*, 211–222. <https://doi.org/10.1016/j.neuropsychologia.2015.08.019>

Mack, J. E., Cho-Reyes, S., Kloet, J. D., Weintraub, S., Mesulam, M. M., & Thompson, C. K. (2013). Phonological facilitation of object naming in agrammatic and logopenic primary progressive aphasia (PPA). *Cognitive Neuropsychology*, *30*(3), 172–193. <https://doi.org/10.1080/02643294.2013.835717>

Magnin, E., Chopard, G., Ferreira, S., Sylvestre, G., Dariel, E., Ryff, I., … Rumbach, L. (2013). Initial neuropsychological profile of a series of 20 patients with logopenic variant of primary progressive aphasia. *Journal of Alzheimer’s Disease: JAD*, *36*(4), 799–808. <https://doi.org/10.3233/JAD-122335>

Mandelli, M. L., Caverzasi, E., Binney, R. J., Henry, M. L., Lobach, I., Block, N., … Gorno-Tempini, M. L. (2014). Frontal white matter tracts sustaining speech production in primary progressive aphasia. *The Journal of Neuroscience: The Official Journal of the Society for Neuroscience*, *34*(29), 9754–9767. <https://doi.org/10.1523/JNEUROSCI.3464-13.2014>

Matías-Guiu, J. A., Cuetos, F., Cabrera-Martín, M. N., Valles-Salgado, M., Moreno-Ramos, T., Carreras, J. L., & Matías-Guiu, J. (2017). Reading difficulties in primary progressive aphasia in a regular language-speaking cohort of patients. *Neuropsychologia*, *101*, 132–140. <https://doi.org/10.1016/j.neuropsychologia.2017.05.018>

Meyer, A. M., Snider, S. F., Campbell, R. E., & Friedman, R. B. (2015). Phonological short-term memory in logopenic variant primary progressive aphasia and mild Alzheimer’s disease. *Cortex; a Journal Devoted to the Study of the Nervous System and Behavior*, *71*, 183–189. <https://doi.org/10.1016/j.cortex.2015.07.003>

Migliaccio, R., Agosta, F., Possin, K. L., Rabinovici, G. D., Miller, B. L., & Gorno-Tempini, M. L. (2012). White matter atrophy in Alzheimer’s disease variants. *Alzheimer’s & Dementia: The Journal of the Alzheimer’s Association*, *8*(5 Suppl), S78-87.e1-2. <https://doi.org/10.1016/j.jalz.2012.04.010>

Ossenkoppele, R., Cohn-Sheehy, B. I., La Joie, R., Vogel, J. W., Möller, C., Lehmann, M., … Rabinovici, G. D. (2015). Atrophy patterns in early clinical stages across distinct phenotypes of Alzheimer’s disease. *Human Brain Mapping*, *36*(11), 4421–4437. <https://doi.org/10.1002/hbm.22927>

Ossenkoppele, R., Schonhaut, D. R., Schöll, M., Lockhart, S. N., Ayakta, N., Baker, S. L., … Rabinovici, G. D. (2016). Tau PET patterns mirror clinical and neuroanatomical variability in Alzheimer’s disease. *Brain: A Journal of Neurology*, *139*(Pt 5), 1551–1567. <https://doi.org/10.1093/brain/aww027>

Patricio, C. M., Gabriela, C., Julieta, R. M., Marcos, F. S., Federico, N., Griselda, R., … Ricardo, A. (2015). Concordance between 11C-PIB-PET and clinical diagnosis in a memory clinic. *American Journal of Alzheimer’s Disease and Other Dementias*, *30*(6), 599–606. <https://doi.org/10.1177/1533317515576387>

Piguet, O., Leyton, C. E., Gleeson, L. D., Hoon, C., & Hodges, J. R. (2015). Memory and emotion processing performance contributes to the diagnosis of non-semantic primary progressive aphasia syndromes. *Journal of Alzheimer’s Disease: JAD*, *44*(2), 541–547. <https://doi.org/10.3233/JAD-141854>

Ramanan, S., Flanagan, E., Leyton, C. E., Villemagne, V. L., Rowe, C. C., Hodges, J. R., & Hornberger, M. (2016). Non-verbal episodic memory deficits in primary progressive aphasias are highly predictive of underlying amyloid pathology. *Journal of Alzheimer’s Disease*, *51*(2), 367–376. <https://doi.org/10.3233/JAD-150752>

Rohrer, J. D., Ridgway, G. R., Crutch, S. J., Hailstone, J., Goll, J. C., Clarkson, M. J., … Warren, J. D. (2010). Progressive logopenic/phonological aphasia: Erosion of the language network. *NeuroImage*, *49*(1), 984–993. <https://doi.org/10.1016/j.neuroimage.2009.08.002>

Rohrer, J. D., Sauter, D., Scott, S., Rossor, M. N., & Warren, J. D. (2012). Receptive prosody in nonfluent primary progressive aphasias. *Cortex; a Journal Devoted to the Study of the Nervous System and Behavior*, *48*(3), 308–316. <https://doi.org/10.1016/j.cortex.2010.09.004>

Sajjadi, S. A., Patterson, K., & Nestor, P. J. (2014). Logopenic, mixed, or Alzheimer-related aphasia? *Neurology*, *82*(13), 1127–1131. <https://doi.org/10.1212/WNL.0000000000000271>

Savage, S., Hsieh, S., Leslie, F., Foxe, D., Piguet, O., & Hodges, J. R. (2013). Distinguishing subtypes in primary progressive aphasia: Application of the Sydney Language Battery. *Dementia and Geriatric Cognitive Disorders*, *35*(3–4), 208–218. <https://doi.org/10.1159/000346389>

Schaeverbeke, J., Evenepoel, C., Bruffaerts, R., Van Laere, K., Bormans, G., Dries, E., … Vandenberghe, R. (2017). Cholinergic depletion and basal forebrain volume in primary progressive aphasia. *NeuroImage. Clinical*, *13*, 271–279. <https://doi.org/10.1016/j.nicl.2016.11.027>

Shim, H., Hurley, R. S., Rogalski, E., & Mesulam, M. M. (2012). Anatomic, clinical, and neuropsychological correlates of spelling errors in primary progressive aphasia. *Neuropsychologia*, *50*(8), 1929–1935. <https://doi.org/10.1016/j.neuropsychologia.2012.04.017>

Silveri, M. C., Pravatà, E., Brita, A. C., Improta, E., Ciccarelli, N., Rossi, P., & Colosimo, C. (2014). Primary progressive aphasia: Linguistic patterns and clinical variants. *Brain and Language*, *135*, 57–65. <https://doi.org/10.1016/j.bandl.2014.05.004>

Spinelli, E. G., Mandelli, M. L., Miller, Z. A., Santos-Santos, M. A., Wilson, S. M., Agosta, F., … Gorno-Tempini, M. L. (2017). Typical and atypical pathology in primary progressive aphasia variants. *Annals of Neurology*, *81*(3), 430–443. <https://doi.org/10.1002/ana.24885>

Teipel, S., Raiser, T., Riedl, L., Riederer, I., Schroeter, M. L., Bisenius, S., … FTLDc study group. (2016). Atrophy and structural covariance of the cholinergic basal forebrain in primary progressive aphasia. *Cortex; a Journal Devoted to the Study of the Nervous System and Behavior*, *83*, 124–135. <https://doi.org/10.1016/j.cortex.2016.07.004>

Tu, S., Leyton, C. E., Hodges, J. R., Piguet, O., & Hornberger, M. (2016). Divergent longitudinal propagation of white matter degradation in logopenic and semantic variants of primary progressive aphasia. *Journal of Alzheimer’s Disease: JAD*, *49*(3), 853–861. <https://doi.org/10.3233/JAD-150626>

Whitwell, J. L., Jones, D. T., Duffy, J. R., Strand, E. A., Machulda, M. M., Przybelski, S. A., … Josephs, K. A. (2015). Working memory and language network dysfunction in logopenic aphasia: A task-free fMRI comparison to Alzheimer’s dementia. *Neurobiology of Aging*, *36*(3), 1245–1252. <https://doi.org/10.1016/j.neurobiolaging.2014.12.013>

Wilson, S. M., Brandt, T. H., Henry, M. L., Babiak, M., Ogar, J. M., Salli, C., … Gorno-Tempini, M. L. (2014). Inflectional morphology in primary progressive aphasia: An elicited production study. *Brain and Language*, *136*, 58–68. <https://doi.org/10.1016/j.bandl.2014.07.001>

Wilson, S. M., Henry, M. L., Besbris, M., Ogar, J. M., Dronkers, N. F., Jarrold, W., … Gorno-Tempini, M. L. (2010). Connected speech production in three variants of primary progressive aphasia. *Brain: A Journal of Neurology*, *133*(Pt 7), 2069–2088. <https://doi.org/10.1093/brain/awq129>

Wilson, S. M., Ogar, J. M., Laluz, V., Growdon, M., Jang, J., Glenn, S., … Gorno-Tempini, M. L. (2009). Automated MRI-based classification of primary progressive aphasia variants. *NeuroImage*, *47*(4), 1558–1567. <https://doi.org/10.1016/j.neuroimage.2009.05.085>

**Appendix C**

*Cochran’s Q Statistic of Contrasts between Neuropsychological Domains within lvPPA*

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Hedges’ *g* | *n* | **GLOB** | **ATT** | **PS** | **FLU** | **LANG** | **MATH** | **VISUO** | **MEM** | **EF** | **SOC** |
| **GLOB** | -2.88 | 44 | -- | 6.85\* | 9.62\*\* | 3.59 | 7.72\*\* | 1.33 | 56.27\*\*\* | 19.85\*\*\* | 2.92 | 0.33 |
| **ATT** | -2.08 | 27 |  | -- | 6.62\*\* | 1.02 | 0.24 | 0.61 | 55.05\*\*\* | 6.89\*\* | 0.10 | 0.14 |
| **PS** | -1.42 | 10 |  |  | -- | 10.98\*\*\* | 2.83 | 7.49\*\* | 9.17\*\* | 0.40 | 4.51\* | 0.80 |
| **FLU** | -2.28 | 22 |  |  |  | -- | 1.45 | 0.003 | 69.62\*\*\* | 12.68\*\*\* | 0.14 | 0.52 |
| **LANG** | -1.98 | 37 |  |  |  |  | -- | 0.70 | 32.64\*\*\* | 3.29 | 0.45 | 0.003 |
| **MATH** | -2.30 | 9 |  |  |  |  |  | -- | 40.16\*\*\* | 7.11\*\* | 0.07 | 0.27 |
| **VISUO** | -0.72 | 25 |  |  |  |  |  |  | -- | 22.78\*\*\* | 36.94\*\*\* | 6.13\* |
| **MEM** | -1.54 | 25 |  |  |  |  |  |  |  | -- | 5.83\* | 0.43 |
| **EF** | -2.18 | 22 |  |  |  |  |  |  |  |  | -- | 0.11 |
| **SOC** | -1.95 | 3 |  |  |  |  |  |  |  |  |  | -- |

*Note*. lvPPA=logopenic variant primary progressive aphasia; GLOB=Global Screening Measures; ATT=Attention; PS=Processing Speed; FLU=Ideational Fluency; LANG=Language; MEM=Memory, VISUO=Visuospatial Skills; EF=Executive Functioning; SOC=Social Cognition; \**p*≤0.05, \*\**p*≤0.01, \*\*\**p*≤0.001

**Appendix D**

*Heterogeneity Indices (I-squared) for task domains and subdomains in lvPPA, svPPA, and nfvPPA groups*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | lvPPA |  | svPPA |  | nfvPPA |  |
|  | I2 (%) | *n* | I2 (%) | *n* | I2 (%) | *n* |
| Overall | 83 | 51 | 77 | 199 | 67 | 110 |
| Global Screening Measures | 91 | 44 | 81 | 153 | 73 | 91 |
| Attention | 62 | 27 | 15 | 92 | 59 | 50 |
|  Simple Attention | 70 | 17 | 0 | 53 | 71 | 33 |
|  Working Memory | 69 | 23 | 24 | 80 | 37 | 43 |
| Processing Speed | 55 | 10 | 42 | 33 | 85 | 24 |
| Ideational Fluency | 63 | 22 | 81 | 99 | 77 | 47 |
|  Letter-Guided Fluency | 55 | 21 | 56 | 72 | 74 | 39 |
|  Category-Guided Fluency | 47 | 18 | 88 | 79 | 82 | 34 |
| Language | 80 | 37 | 90 | 141 | 76 | 67 |
|  Speech Output | 86 | 11 | 83 | 21 | 86 | 23 |
|  Repetition | 30 | 16 | 35 | 23 | 57 | 20 |
|  Naming | 82 | 31 | 92 | 117 | 75 | 53 |
|  Reading | 86 | 3 | 68 | 18 | 71 | 11 |
|  Comprehension | 80 | 22 | 83 | 85 | 74 | 43 |
|  Semantic Knowledge | 77 | 11 | 80 | 60 | 57 | 18 |
| Math | 68 | 9 | 68 | 30 | 76 | 18 |
| Memory | 61 | 25 | 79 | 95 | 67 | 48 |
|  Immediate Verbal Recall | 93 | 3 | 87 | 13 | 75 | 6 |
|  Delayed Verbal Recall | 83 | 8 | 74 | 30 | 82 | 16 |
|  Verbal Recognition Memory | 92 | 3 | 88 | 27 | 82 | 12 |
|  Immediate Visuospatial Recall | 0 | 2 | 64 | 12 | 76 | 4 |
|  Delayed Visuospatial Recall | 56 | 16 | 35 | 59 | 52 | 24 |
|  Visual Recognition Memory | 44 | 8 | 84 | 31 | 53 | 16 |
| Visuospatial Skills | 43 | 25 | 52 | 94 | 62 | 45 |
|  Visuoperceptual | 0 | 8 | 59 | 55 | 72 | 25 |
|  Visuoconstruction | 54 | 23 | 51 | 75 | 42 | 31 |
| Executive Functioning | 83 | 22 | 64 | 74 | 78 | 44 |
|  Visual Set-Shifting | 82 | 21 | 41 | 59 | 72 | 35 |
| Social Cognition | 87 | 3 | 37 | 20 | 0 | 9 |

*Note*. Logopenic variant primary progressive aphasia (lvPPA), semantic variant primary progressive aphasia (svPPA), and non-fluent variant PPA (nfvPPA)

**Appendix E**

Task domains, subdomains, and example tests assigned in meta-analyses

|  |  |  |
| --- | --- | --- |
| **Cognition** | **Subdomain** | **Example Tests** |
| Global Screening Measures | - |  |
|  |  | Mini-Mental State Exam (Folstein *et al.* 1975) |
|  |  | Montreal Cognitive Assessment (Osborne *et al.* 2014) |
|  |  | Dementia Rating Scale (Bellak *et al.* 1976) |
|  |  | Addenbroke’s Cognitive Examination (Mathuranath *et al.* 2000) |
|  |  | Addenbroke’s Cognitive Examination – Revised Total (Mathuranath *et al.* 2000) |
|  |  | Addenbroke’s Cognitive Examination – Revised orientation (Mathuranath *et al.* 2000) |
|  |  | Cambridge Cognition Examination (Roth *et al.* 1986) |
|  |  | Philadelphia Brief Assessment of Cognition (Libon *et al.* 2011) |
|  |  | Frontal Assessment Battery (Dubois *et al.* 2000) |
|  |  | Frontotemporal Dementia Rating Scale (FRS) (Moishi *et al.* 2010) |
|  |  | TBAC score (Total) (Libon 2011) |
| Attention | - |  |
|  |  | Digit Span Total (Wechsler 1997b) |
|  |  | DRS Attention subtest (Bellak *et al.* 1976) |
|  |  | ACE Attention (Mathuranath *et al.* 2000) |
|  |  | TEA Elevator Counting with Distraction (Robertson *et al.* 1994) |
|  |  | Map Search (Robertson *et al.* 1994) |
|  |  | Dual Number Cancellation (Robertson *et al.* 1994) |
|  | Simple Attention | WAIS, WMS or RBANS Digit Span Forward (Wechsler 1997b) |
|  |  | Visuospatial Span Forward (Wechsler 1997b) |
|  |  | Corsi Block-Tapping Task – Forward Span (Corsi 1972) |
|  | Working Memory | Digit Span Backward (Wechsler 1997b) |
|  |  | Visuospatial Span Backward (Wechsler 1997b) |
|  |  | Auditory Consonant Trigram Test (Strauss *et al.* 2007) |
|  |  | Running Span Task (Quinette *et al.* 2003) |
| Processing Speed | - |  |
|  |  | Stroop Color or Word Reading Trials (Scarpina & Tagini 2017) |
|  |  | Trail Making Test Part A (Reitan 1958) |
|  |  | WAIS-R or WAIS-III Digit Symbol Coding (Wechsler 1997a) |
|  |  | Crossing-off Test (Botwinick & Storandt 1973) |
| Ideational Fluency | - |  |
|  |  | ACE Verbal Fluency subtest (Mathuranath *et al.* 2000) |
|  |  | Design Fluency Assessment (Delis *et al.* 2001) |
|  |  | DKEFS Nonverbal Fluency (Delis *et al.* 2001) |
|  | Letter-Guided Fluency | Controlled Oral Word Association Test (Benton *et al.* 1994) |
|  |  | Letter-Based Word Fluency Test (Mathuranath *et al.* 2000) |
|  |  | Alternating M and N (Mandelli *et al.* 2016) |
|  | Category-Guided Fluency | Controlled Oral Word Association Test (Benton *et al.* 1994) |
|  |  | Animal Naming (Sager *et al.* 2006) |
|  |  | CSMTB Category Fluency Test (Adlam *et al.* 2010) |
|  |  | Category-Based Word Fluency Test (Sager *et al.* 1992) |
|  |  | Isaacs Set Test (Isaacs & Kennie 1973) |
| Language | - |  |
|  |  | Western Aphasia Battery (WAB) Aphasia Quotient (Kertesz 1982) |
|  |  | Western Aphasia Battery (WAB) Revised (Kertesz, 2006) |
|  |  | Western Aphasia Battery Naming Subtest (Kertesz 1982) |
|  |  | ACE Language subtest (Mathuranath *et al.* 2000) |
|  |  | ACE Naming of language subtest (Mathuranath *et al.* 2000) |
|  |  | MMSE – Language (Folstein *et al.* 1975) |
|  |  | Mississippi Aphasia Screening Test (Nakase-Thompson *et al.* 2005) |
|  |  | PBAC Language Subscale (Libon *et al.* 2011) |
|  |  | Arizona Phonological Battery subtests (Beeson *et al.* 2010) |
|  |  | Language Composite BNT and VAT (Kaplan *et al. 1983)* |
|  |  | Barcelona Test – buccofacial praxis (Peña-Casanova *et al.* 2009) |
|  |  | Action Picture Naming (Meligne 2011) |
|  |  | Lexical Decision Task (Glosser & Friedman 1991) |
|  |  | Picture naming/Word-Picture Matching (Hodges & Patterson 1995) |
|  |  | Object Naming (Goll *et al.* 2010) |
|  |  | Exemplar/View Condition (Ikeda *et al.* 2006) |
|  |  | Snodgrass and Vanderwart (1980) subtests (Hodges *et al.* 1999) |
|  | Speech Output  | WAB Spontaneous Speech Fluency subtest (Kertesz 1982) |
|  |  | Speech Rate (words per minute) (Capasso & Miceli 2001) |
|  |  | Fluency (words per minute), (Reverberi, Capitani, & Laicona 2004) |
|  |  | Picture Description (words per minute) (Goodglass & Kaplan 1983) |
|  |  | Northwestern Anagram Test (Weintraub *et al.* 2009) |
|  |  | NAVS Sentence Production Priming Test (Thompson 2011) |
|  |  | BDAE Verbal Agility subtests (Goodglass & Kaplan 1983) |
|  |  | Automatic Speech subtests (Kertesz 1982) |
|  |  | Story Completion Task (Breedin *et al.* 1998) |
|  |  | Action/evaluation Clauses (Coates, 2003) |
|  |  | Apraxia of Speech, Mini-Mental State Exam (Folstein *et al.* 1975) |
|  |  | Autobiographical/conversational speech stories (Gola *et al.* 2015) |
|  |  | Propositional Speech (Hardy, 2016) |
|  |  | MSE Apraxia of Speech/Dysarthria/Speech Production Score (Mandelli *et al.* 2014) |
|  | Repetition | WAB Repetition subtest (Kertesz 1982) |
|  |  | PALPA/Modified Repetition subtest (Kay *et al.* 1996) |
|  |  | SYDBAT Repetition subtest (Savage *et al.* 2013) |
|  |  | Single-Word Repetition Task (Warrington *et al.* 1998) |
|  |  | Novel Sentence Repetition (McCarthy & Warrington 1984) |
|  |  | Children’s Non-Word Repetition Test (Gathercole *et al.* 1994) |
|  |  | MAE Sentence Repetition (Benton *et al.* 1994) |
|  |  | Repeat & Point Test – Repeat component (Hodges *et al.* 2008) |
|  |  | Pseudoword Repetition (Meyer 2015) |
|  | Naming | Boston Naming Test (Kaplan *et al.* 1983) |
|  |  | Modified Boston Naming Test 15- and 30-item (Kaplan *et al.* 1983) |
|  |  | Graded Naming Test (Warrington 1997) |
|  |  | SYDBAT Naming subtest (Savage *et al.* 2013) |
|  |  | CSMTB Picture Naming subtest (Bozeat *et al.* 2000) |
|  |  | Northwestern Naming Battery (Thompson & Weintraub 2014) |
|  |  | CSMTB 64-item Naming Task (Bozeat *et al.* 2000) |
|  |  | BECS GRECO Picture-Naming Task (Merck *et al.* 2011) |
|  |  | VAT Naming (Lindeboom 2002) |
|  |  | Picture naming test (DO 80) (Sajjadi *et al.* 2012) |
|  |  | Picture Naming (Hodges & Patterson 1995) |
|  |  | An Object and Action Naming Battery (Druks & Masterson 2000) |
|  |  | London Landmark Naming and Identification Test (Whiteley & Warrington 1978) |
|  |  | Living-nonliving confrontation naming test (Nelissen 2010) |
|  |  | 64-item Naming Test/Semantic Battery (Hodges & Patterson 1995) |
|  |  | Naming to Description (Snodgrass & Vanderwart 1980) |
|  |  | Semantic Knowledge Task (Giffard *et al.* 2001) |
|  | Reading | National Adult Reading Test (Nelson 1982) |
|  |  | American National Adult Reading Test (Blair & Spreen 1989) |
|  |  | Schonell Reading Test (Schonell 1960) |
|  |  | Graded Difficulty Nonword Reading Test (Snowling *et al.* 1996) |
|  |  | Irregular word reading (Sajjadi *et al.* 2012) |
|  |  | DKEFS Stroop word/color (Delis *et al.* 2001) |
|  |  | Single-word reading (Beeson *et al.* 2010) |
|  |  | “Grandfather passage” (Maruta *et al.* 2014) |
|  | Spelling | Graded Spelling Test (Baxter & Warrington 1994) |
|  | Written Expression | BDAE Narrative Writing subtest (Goodglass & Kaplan 1983) |
|  | Comprehension | CSMTB Word-Picture Matching subtest (Bozeat *et al.* 2000) |
|  |  | Test for Reception of Grammar (Bishop 1989) |
|  |  | Peabody Picture Vocabulary Test (Dunn 1965) |
|  |  | British Picture Vocabulary Scale (Dunn 1997) |
|  |  | PALPA Sentence Comprehension, Word-Picture Matching subtests (Kay *et al.* 1996) |
|  |  | Aachen Aphasie Test (AAT) Comprehension Subtest (Weniger *et al.* 1981) |
|  |  | MAE Token Test (Benton *et al.* 1994) |
|  |  | NAVS Sentence Comprehension (Thompson 2011) |
|  |  | BADA Sentence Comprehension Test (Miceli *et al.* 1994) |
|  |  | Auditory and written sentence comprehension (Sajjadi *et al.* 2012) |
|  |  | Story Comprehension (Happé 1994) |
|  |  | Warrington Synonym Test (Warrington *et al.* 1998) |
|  |  | CYCLE Sentence Comprehension (Curtiss & Yamada 1988) |
|  |  | WAB Word Recognition, Sequential Commands subtests (Kertesz 1982) |
|  |  | SYDBAT Word Comprehension Task (Savage *et al.* 2013) |
|  |  | Theory of Mind stories – Comprehension trial (Happé 1994) |
|  |  | ACE-R Comprehension Mathuranath *et al.* 2000) |
|  |  | Action Comprehension Test (Instrumental, Symbolic, Total) (Nishio *et al.* 2006) |
|  |  | Object Use Task (De Renzi *et al.* 1980) |
|  |  | Associativity Judgment Task (Cousins *et al.* 2016) |
|  |  | Complexity of narratives (Gola *et al.* 2015) |
|  |  | Synonym Comprehension Test (Warrington *et al.* 1998) |
|  | Semantic Knowledge | Pyramids and Palm Trees – Pictures and Words (Howard 1992) |
|  |  | CSMTB Camels and Cactus Test (Bozeat *et al.* 2000) |
|  |  | CSMTB Pyramids and Palm Trees Words (Bozeat *et al.* 2000) |
|  |  | SYDBAT Semantic Association subtest (Savage *et al.* 2013) |
|  |  | BECS GRECO Verbal Semantic Matching (Merck *et al.* 2011) |
|  |  | Semantic Categorization Test (Grossman *et al.* 1997) |
|  |  | Visual Semantic Association Test (Visch-Brink *et al.* 2005) |
|  |  | Verb Similarity Task (Price & Grossman 2005) |
|  |  | Size/Weight Attribute Test (Warrington & Crutch 2007) |
|  |  | Association Task DeCAbs Battery (Della Rosa *et al.* 2014) |
|  |  | Object picture-naming (Center for Research in Language—International Picture-NamingProject corpus (Bates *et al.* 2000), |
|  |  | Verbal Definitions (Snodgrass & Vanderwart 1980) |
| Math | - |  |
|  |  | Graded Difficulty Arithmetic Test (Jackson & Warrington 1986) |
|  |  | WAB Calculation (Kertesz 1982) |
|  |  | Oral and Written Calculation tasks (Halpern *et al.* 2003) |
| Memory | - |  |
|  |  | ACE-R Memory subtest (Mathuranath *et al.* 2000) |
|  |  | MMSE Recall (Folstein *et al.* 1975) |
|  |  | DRS Memory subtest (Bellak *et al.* 1976) |
|  |  | NAB Memory subtest (Stern & White 2003) |
|  |  | Semi-structured questionnaire (Piolino 2003) |
|  |  | Autobiographical memory Galton-Crovitz design (Greenberg *et al.* 2011) |
|  | Verbal Learning | Camden Paired Associate Learning (Warrington 1996) |
|  |  | CVLT-II (2000) Learning Trials  |
|  |  | CVLT-MS Trials (Rosen *et al.* 2004) |
|  |  | RAVLT Learning Trials (Schmidt 1996) |
|  |  | Grober and Buschke learning (Grober & Buschke 1987) |
|  |  | Auditory Verbal Learning Test (Magerova *et al.* 2014) |
|  |  | PVLT (Libon *et al.* 1996) |
|  | Immediate Verbal Recall | CVLT-MS 30” Free Recall (Rosen *et al.* 2004) |
|  |  | CVLT-30” (9) Free Recall |
|  |  | WMS-III Logical Memory Immediate Recall (Wechsler 1997b) |
|  |  | RAVLT Immediate Recall (Schmidt 1996) |
|  |  | Free and Cued Selective Reminding Test Immediate Recall (Grober & Buschke 1987) |
|  |  | Philadelphia Verbal Learning Test (PVLT) Short Delay ((Libon *et al.* 1996) |
|  | Delayed Verbal Recall | CVLT-MS 10’ Free Recall or Retention (Rosen *et al.* 2004) |
|  |  | CVLT-9 Delayed Recall (Ossenkoppele et al., 2015) |
|  |  | WMS-III Logical Memory Delayed Recall or Retention (Wechsler 1997b) |
|  |  | CERAD Delayed Recall or Retention (Morris *et al.* 1993) |
|  |  | HVLT Delayed Recall or Retention (Brandt 1991) |
|  |  | RAVLT 30’ Delayed Recall or Retention (Schmidt 1996) |
|  |  | Free and Cued Selective Reminding Test Immediate Recall (Grober & Buschke 1987) |
|  |  | PVLT Delayed Recall or Retention (Price *et al.* 2009) |
|  | Verbal Recognition Memory | CVLT Recognition Memory  |
|  |  | CVLT 10’ Recognition |
|  |  | CERAD Word-List Recognition (Morris *et al.* 1993) |
|  |  | WRMT Words subtest (Soukup *et al.* 1999) |
|  |  | Grober and Buschke Recognition (Grober & Buschke 1987) |
|  |  | RAVLT Recognition (Schmidt 1996) |
|  |  | WMS-III Logical Memory Recognition (Wechsler 1997b) |
|  |  | DRM Recognition Discriminability (Roediger & McDermott 1995) |
|  |  | HVLT Recognition Memory (Brandt 1991) |
|  |  | Free Recall Cued Test Recognition (Ferreira *et al.* 2010) |
|  | Immediate Visuospatial Recall | RCFT/modified RCFT 3’ Immediate Recall (Meyers 1999) |
|  |  | WMS-III Visual Reproduction, Faces Immediate Recall (Wechsler 1997b) |
|  |  | AMIPB Immediate Figure Recall (Coughlan & Hollows 1985) |
|  | Delayed Visuospatial Recall | RCFT/modified RCFT Delayed Recall (Meyers 1999) |
|  |  | Visual Object Memory Recall (Stopford *et al.* 2007) |
|  |  | Benson Figure Recall (Possin *et al.* 2011) |
|  |  | WMS-III Visual Reproduction Delayed Recall (Wechsler 1997b) |
|  |  | AMIPB Delayed Figure Recall (Coughlan & Hollows 1985) |
|  | Visual Recognition Memory | RCFT/modified RCFT Recognition Memory (Meyers 1999) |
|  |  | Doors and People Test: Doors subtest (Baddeley *et al.* 1994) |
|  |  | WRMT Faces subtest (Soukup *et al.* 1999) |
|  |  | CANTAB Delayed Matching to Sample Test (Fray *et al.* 1996) |
|  |  | RVDLT Design Learning Test Recognition (Rey 1958) |
|  |  | Camden Pictorial Recognition Memory Test (Warrington 1996) |
|  |  | Visual Association Test (Lindeboom 2002) |
|  |  | Four Mountains Test (Bird *et al.* 2010) |
|  |  | Camden Topographical Recognition Memory Test (Warrington 1996) |
|  |  | RVDLT Recognition Memory (Rey 1958) |
|  |  | WMS-III Faces subtest (Wechsler 1997b) |
|  | Semantic Memory | Dead or Alive Test (Kapur *et al.* 1989) |
|  |  | Famous People Test (Snowden 2004) |
|  |  | NUFFACE Test Naming/Recognition (Gefen *et al.* 2013) |
|  |  | UCSF Famous Face Naming (Gorno-Tempini *et al.* 2004) |
|  |  | Semantic Feature Questions (Snodgrass & Vanderwart, 1980) |
| Visuospatial Skills | Motor-free Visuoperceptual | VOSP subtests (Warrington 1991) |
|  |  | Benton Face Recognition Test, BFRT Short Form (Benton 1994) |
|  |  | Benton Judgement of Line Orientation (Benton 1994) |
|  |  | Hooper Visual Organization Test (Hooper 1979) |
|  |  | Birmingham Object Recognition Battery (Riddoch & Humphreys 1993) |
|  |  | Clock Reading tasks (Sunderland *et al.* 1989) |
|  |  | FAID Face-Perception and Face-Matching tasks (Miller *et al.* 2012) |
|  |  | Benton Face Perception Task (Benton & Van Allen, 1968) |
|  |  | Perceptual Control Tasks (Cohen *et al.* 2016) |
|  |  | Visual Verbal Test (Feldman & Drasgow, 1959) |
|  | Visuoconstruction | RCFT Figure Copy (Meyers 1999) |
|  |  | MMSE Figure Copy (Folstein *et al.* 1975) |
|  |  | ACE Visuoconstruction (Mathuranath *et al.* 2000) |
|  |  | Benson Figure Copy (Possin *et al.* 2011) |
|  |  | Benton Figure Copy (Benton *et al.* 1994) |
|  |  | Beery Figure Copy (Beery 1982) |
|  |  | Clock Copy (Sunderland *et al.* 1989) |
|  |  | AMIPB Figure Copy (Coughlan & Hollows 1985) |
|  |  | Gestalt Completion Test (Ekstrom *et al.* 1976) |
|  |  | Visuo-construction with copy of the triangles of the BEC96 (Magnin *et al.* 2012) |
| Executive Functioning | - |  |
|  |  | Tower of London (Krikorian *et al.* 1994) |
|  |  | Wisconsin Card Sorting Test Categories (Kongs *et al.* 2000) |
|  |  | Wisconsin Card Sorting Test Perseverative Errors (Kongs *et al.* 2000) |
|  |  | Wisconsin Card Sorting Test Errors (Kongs *et al.* 2000) |
|  |  | BADS subtests (Wilson, B.A. *et al.* 1996) |
|  |  | DKEFS Shifting Trials (Delis *et al.* 2001) |
|  |  | Object and Delayed Alternation (Freedman *et al.* 2013) |
|  |  | Fluency switching/loss of set (Reverberi, Capitani, & Laicona, 2004). |
|  |  | Dysexecutive Questionnaire (Burgess *et al.* 1996) |
|  |  | Della Sala Dual Task, mu score (DSDT) (Della Sala et al., 1995) |
|  |  | Modified Trails (Wilson 2014a) |
|  | Response Inhibition | Stroop Color-Word Inhibition Trial (Scarpina & Tagini, 2017) |
|  |  | Stroop Color-Word Interference Trial (Scarpina & Tagini, 2017) |
|  |  | DKEFS Stroop Inhibition (Delis *et al.* 2001) |
|  |  | Hayling Sentence Completion Test (Burgess & Shallice 1997) |
|  | Visual Set-Shifting | Trail Making Test Part B or B-A difference or modified Trail B (Reitan 1958) |
|  |  | D-KEFS Trail Making Test Number–Letter Trial (Delis *et al.* 2001) |
|  | Concept Formation | Wisconsin Card Sorting Test Categories Completed (Kongs *et al.* 2000) |
|  |  | Modified Wisconsin Card Sorting Test Categories Completed (Schretlen 2010) |
|  |  | Visual Verbal Test (Feldman & Drasgow 1959) |
|  |  | D-KEFS Sorting Test (Delis *et al.* 2001) |
| Social Cognition | - |  |
|  |  | TASIT subtests (McDonald *et al.* 2006) |
|  |  | Florida Affect Battery Emotion Naming/Discrimination (Rosen *et al.* 2002) |
|  |  | Cambridge Behavioural Inventory (CBI; Wedderburn *et al.* 2008) |
|  |  | CATS subtests (Froming *et al.* 2001) |
|  |  | Ekman 60 Faces/Caricatures (Ekman & Friesen 1976) |
|  |  | Reading the Minds Eyes Test (Baron-Cohen *et al.* 1997) |
|  |  | Emotion Word Synonyms and Emotion Word Association Tests (Hsieh *et al.* 2012) |
|  |  | Affect and Emotion Matching Tasks (Stone *et al.* 1998) |
|  |  | Theory of Mind Tasks (Winner *et al.* 1998) |
|  |  | Music Emotion Recognition (Omar et al., 2010) |
|  |  | Intentional Emotional Expression Task (Gola *et* *al.* 2017) |
|  |  | Facial Emotion Processing Task (Calder 1996) |
|  |  | Moral/Conventional Distinction Task (Lough *et al.* 2006) |
|  |  | Linguistic prosody test (Rohrer, 2012). |
|  |  | Gesture imitation and discrimination (De Renzi *et al.* 1980) |
|  |  | Facial Affect Selection Task (Bowers D *et al.* 1992) |
|  |  | Emotion Selection Task (Miller *et al.* 2012) |
|  |  | Face-Emotion Matching Task (Bowers D *et al.* 1992) |
|  |  | Attribution of intention test (Brunet *et al.* 2000) |
|  |  | Benton Facial Recognition Task (Benton *et al.* 1989) |
|  |  | Voice Perception tests (Hailstone *et al.* 2011) |
|  |  | Self-evaluation Preservation (Gola *et al.* 2015) |
|  |  | Scripts (Cosentino *et al.* 2006) |

AAT = Aachen Aphasia Test; ACE = Addenbroke’s Cognitive Examination; AMIPB = Adult Memory and Information Processing Battery; BADA = Batteria per l’Analisi dei Deficit Afasici also called the Battery for the Analysis of the Aphasic Deficit; BADS = Behavioural Assessment of the Dysexecutive Syndrome; BECS GRECO = La batterie d'évaluation des connaissances sémantiques du GRECO also called the GRECO Neuropsychological Semantic Battery(Merck *et al.* 2011); CANTAB = Cambridge Neuropsychological Test Automated Battery, CATS = Comprehensive Affect Testing System; CERAD = Consortium to Establish a Registry for Alzheimer's Disease Neuropsychological Assessment Battery; CSMTB = Cambridge Semantic Memory Test Battery; CYCLE = Curtiss–Yamada Comprehension Language Evaluation; DKEFS = Delis-Kaplan Executive Function System; DRM = Deese-Roediger-McDermott Paradigm; DRS = Dementia Rating Scale; FAI = Facial Affect and Identity Discrimination; MAE = Multilingual Aphasia Examination; NAB = Neuropsychological Assessment Battery; NAVS = Northwestern Assessment of Verbs and Sentences; NUFFACE = Northwestern University Famous Faces; PALPA = Psycholinguistic Assessments of Language Processing in Aphasia; PBAC = Philadelphia Brief Assessment of Cognition; PVLT = Philadelphia Verbal Learning Test; RVDLT = Rey Visual Design Learning Test; SEA = Social Cognition and Emotional Assessment; SYDBAT = Sydney Language Battery; TASIT = The Awareness of Social Inference Test; TEA = Test of Everyday Attention(Robertson *et al.* 1994); TROG = Test for Reception of Grammar(Bishop 1989); VAT = Visual Association Test; WRMT = Warrington Recognition Memory Test(Soukup *et al.* 1999); WAB = Western Aphasia Battery

**References for Appendix E**

Adlam, A., Patterson, K., Bozeat, S., & Hodges, J.R. (2010). The Cambridge Semantic Memory Test Battery: Detection of semantic deficits in semantic dementia and Alzheimer’s disease. *Neurocase, 16,* 193–207.

Baddeley, A. D., Emslie, H., & Nimmo-Smith, I. (1994). *Doors and People: A test of visual and verbal recall and recognition manual*. Thames Valley Test Company.

Baron-Cohen, S., Jolliffe, T., Mortimore, C., & Robertson, M. (1997). Another advanced test of theory of mind: evidence from very high functioning adults with Autism or Asperger Syndrome. *Journal of Child Psychology and Psychiatry and Allied Disciplines,* *38,* 813–822.

Basso, A., Spinnler, H., Vallar, G., & Zanobio, M. E. (1982). Left hemisphere damage and selective impairment of auditory verbal short-term memory: A case study. *Neuropsychologia* *20,* 263–274.

Bates, E., Federmeier, K., Herron, D., Iyer, G., Jacobsen, T., Pechmann, T., ... Pleh, C. (2000, May). Introducing the CRL International Picture-naming Project (CRL-IPNP). *Center for Research in Language Newsletter, 12,* (1). La Jolla: University of California, San Diego.

Baxter, D. M., & Warrington, E.K. (1994). Measuring dysgraphia: A graded-difficulty spelling test. *Behavioural Neurology,* *7,* 107–116.

Bechara A., Damasio, A. R., Damasio, H., Anderson, S.W. (1994). Insensitivity to future consequences following damage to human prefrontal cortex. *Cognition,* *50,* 7–15.

Beery, K. E. (1982). *Administration, scoring, and teaching manual for the developmental test of visual-motor integration* (Rev. ed.). Cleveland, Toronto: Follett Publishing Company.

Beeson, P.M., Rising, K., Kim, E.S., & Rapcsak, S. Z. (2010). A treatment sequence for phonological alexia/agraphia. *Journal of Speech Language and Hearing Research, 53,* 450-468.

Bellak, L., Mattis, S., & Karasu, T. (1976). *Dementia rating scale in geriatric psychiatry: A handbook for psychiatrists and primary care physicians.* New York, NY: Grune and Stratton.

Benton, A. L., Hamsher, K. D., & Sivan, A. B. (1994). *Multilingual aphasia examination: Manual of instructions*. Iowa City, IA: AJA Assoc.

Benton, A. L., Sivan, A. B., Hamsher, K. D., Varney, N. R., & Spreen, O. (1994). *Contributions to neuropsychological assessment: A clinical manual*. New York, NY: Oxford University Press.

Benton, A. L., & Van Allen, M. W. (1968).Impairment in facial recognition in patients with cerebral disease. *Cortex, 4*(4), 344-358.

Bird, C. M., Chan, D., Hartley, T., Pijnenburg, Y. A., Rossor, M. N., & Burgess, N. (2010). Topographical short-term memory differentiates Alzheimer’s disease from frontotemporal lobar degeneration. *Hippocampus,* *20,* 1154–1169.

Bishop, D. V. M. (1989). *Test for the reception of grammar (TROG), Version 2*. Medical Research Council.

Blair, J. R., & Spreen, O. (1989). Predicting premorbid IQ: A revision of the national adult reading test. *Clinical Neuropsychologist, 3*, 129–136.

Brunet, E., Sarfati Y., Hardy-Bayle, M.C., & Decety, J. (2000). A PET investigation of the attribution of intentions with a nonverbal task. *Neuroimage, 11*(2), 157-66.

Botwinick, J., & Storandt, M. (1973). Speed functions, vocabulary ability, and age. *Perceptual and Motor Skills, 36*, 1123–1128.

Bowers, D., Blonder, L. X., & Heilman, K. M. (1992). *The Florida Affect Battery*. Center for Neuropsychological Studies Cognitive Neuroscience Laboratory University of Florida. Gainsville, Florida. Retrieved from <https://neurology.ufl.edu/files/2011/12/Florida-Affect-Battery-Manual.pdf>

Bozeat, S., Lambon, R. M. A., Patterson, K., Garrard, P., & Hodges, J. R. (2000). Non-verbal semantic impairment in semantic dementia. *Neuropsychologia, 38*, 1207–1215.

Brandt, J. (1991). The Hopkins Verbal Learning Test: Development of a new memory test with six equivalent forms. *Clinical Neuropsychologist, 5*, 125–142.

Breedin, S. D., Saffran, E. M., Schwartz, M. F. (1998). Semantic factors in verb retrieval: An effect of complexity. *Brain Lang, 1*(63), 1-31.

Burgess, P. W., & Shallice, T. (1997). *The Hayling and Brixton tests*. Pearson.

Calder, A. J. (1996). Facial emotion recognition after bilateral amygdala damage: Differentially severe impairment of fear. *Cognitive Neuropsychology, 13*, 699–745.

Capasso, & R., Miceli, G. (2001). *Esame neuropsicologico per l’Afasia: E.N.P.A.* Springer Science & Business Media.

Coates, J. (2003). *Men talk: Stories in the making of masculinities.* MA: Blackwell, Malden.

Cohen, M. H., Carton, A. M., Hardy, C. J., Golden, H. L., Clark, C. N., Fletcher, P. D., … Warren, J. D. (2016). Processing emotion from abstract art in frontotemporal lobar degeneration. *Neuropsychologia, 81,* 245–254.

Corsi, P. M. (1972). Human memory and the medial temporal region of the brain. *Dissertation Abstracts International, 34.*

Cosentino, S., Chute, D., Libon, D., Moore, P., & Grossman, M. (2006). How does the brain support script comprehension? A study of executive processes and semantic knowledge in dementia. *Neuropsychology, 20*(3), 307-18.

Coughlan, A. K., & Hollows, S. E. (1985). *The adult memory and information processing battery (AMIPB): Test manual*. Leeds: A.K. Coughlin, Psychology Dept, St James' Hospital.

Cousins, A. K. Q., York, C., Bauer, L., & Grossman, M. (2016). Cognitive and anatomic double dissociation in the representation of concrete and abstract words in a semantic variant and behavioral variant frontotempral degeneration. *Neuropsychologia, 84,* 244-251.

Curtiss, S., & Yamada, J. (1988). Curtiss-Yamada comprehensive language evaluation: Unpublished test. Retrieved from <https://www.cycletests.com/>

De Renzi, E., Faglioni, P., Savoiardo, M., & Vignolo, L. A. (1966). The influence of aphasia and of the hemispheric side of the cerebral lesion on abstract thinking. *Cortex, 2,* 399–420.

De Renzi, E., Motti, F., & Nichelli, P. (1980) Imitating gestures: A quantitative approach to ideomotor apraxia. *Arch Neurol, 37*,6–10.

Delis, D. C. (2000). *California Verbal Learning Test, Second Edition: CVLT-II Adult Version Manual*. Pearson.

Delis, D., Kaplan, E., & Kramer, J. (2001). *The Delis-Kaplan executive function system*. San Antonio, TX: The Psychological Corporation.

Della Rosa, P. A., Catricala, E., De Battisti, S., Vinson, D., Vigliocco, G., & Cappa, S. F. (2014). How to assess conceptual knowledge: Construction, standardization, and validation of a new battery of semantic memory tests. *Functional Neurology, 29*(1), 47-55.

Della Sala, S., Baddeley, A., Papagno, C., & Spinnler, H. (1995). Dual task paradigm: A means to examine the central executive. *Ann NY Acad Sci, 769,* 161–171.

Druks J., & Masterson J. (2000). An object and action naming battery. Hove, UK: Psychology Press.

Dubois, B., Slachevsky, A., Litvan, I., & Pillon, B. (2000). The FAB: A frontal assessment battery at bedside. *Neurology, 55*, 1621–1626.

Dunn, L. M. (1965). *Expanded manual for the peabody picture vocabulary test*. American Guidance Service.

Dunn, L. M. (1997). *The British picture vocabulary scale* (Second ed.). Windsor, England: NFER-Nelson.

Ekman, P., & Friesen, W. V. (1976). *Pictures of facial affect*. Palo Alto, CA: Consulting psychologists Press.

Ekstrom, R. B., French, J. W., Harman, H. H., & Dermen, D. (1976). Manual for kit of factor-referenced cognitive tests. Princeton, New Jersey: Educational Testing Service.

Feldman, M. J., & Drasgow, J. D. (1959). *The visual-verbal test: Manual*. Western Psychological Services.

Ferreira, S., Vanholsbeeck, G., Chopard, G., Pitard, A., Tio, G., Vandel, P., … Rumbach, L. (2010) Normes comparatives de la batterie de tests neuropsychologiques RAPID pour les sujets ˆag´es de 50 `a 89 ans. *Rev Neurol (Paris), 166*, 606- 614.

Folstein, M. F., Folstein, S. E., & McHugh, P. R. (1975). ‘Mini-mental state’: A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research* *12,* 189–198.

Fray, P. J., Robbins, P. W., & Sahakian, B. (1996). Neuropsychiatric applications of CANTAB. *International Journal of Geriatric Psychiatry* 11, 329–336.

Freedman, M., Binns, M. A., Black S. E., Levine, B., Miller, B. L., Ramirez, J., … Stuss, D. T. (2013). Object alternation a novel probe of medial frontal function in frontotemporal dementia. *Alzheimer disease and associated disorders, 27*(4), 316-323.

Froming, K. B., Ekman, P., & Levy, M. (2001). *Comprehensive affect testing system*. Gainsville, Florida: Psychology Software, Inc.

Gathercole, S. E., Willis, C. S., Baddeley, A. D., & Emslie, H. (1994). The children’s test of nonword repetition: a test of phonological working memory. *Memory, 2*, 103–127.

Gefen, T., Wieneke, C., Martersteck, A., Whitney, K., Weintraub, S., Mesulam, M. M., & Rogalski E (2013). Naming vs knowing faces in primary progressive aphasia. *Neurology, 81*, 658–664.

Giffard, B., Desgranges, B., Nora-Mary, F., Gil, R., Toullat, G., Pluchon, C., … & Neau, J. (1986). Une methoded’evaluation rapide des fonctions cognitives (ERFC): Sonapplication ́alad emence senile de type Alzheimer. *Sem Hop Parıs*, 2127–2233.

Giffard, B., Desgranges, B., Nore-Mary, F., Lalevee, C., de la Sayette, V., Pasquier, F., & Eustache, F. (2001). The nature of semantic memory deficits in Alzheimer's disease: New insights from hyperpriming effect. *Brain, 124*(Pt 8), 1522-32.

Glosser, G., & Friedman, R. B. (1991). Lexical but not semantic priming in Alzheimer’s disease. *Psychology and Aging*, *6*(4), 522–527.

Gola, K. A., Shany-Ur, T., Pressman, P., Sulman, I., Galeana, E., Paulsen, H., … Rankin, K. P. (2017). A neural network underlying intentional emotional facial expression in neurodegenerative disease. *NeuroImage:Clinical, 14*, 672–678.

Gola, K. A., Thorne, A., Veldhuisen, L. D., Felix, C. M., Hankinson, S., Pham, J,. … Rankin, K. P. (2015). Neural substrates of spontaneous narrative production in focal neurodegenerative disease, *Neuropsychologia, 79,* 158-171.

Goll, J. C., Crutch, S. J., Loo, J. H., Rohrer, J. D., Frost, C., Bamiou, D. E., & Warren, J. D. (2010). Non-verbal sound processing in the primary progressive aphasias, *Brain, 133,* 272-285.

Goodglass, H., & Kaplan, E. (1983). *Boston diagnostic aphasia examination (BDAE)*. Philadelphia, PA: Lea and Febiger.

Gorno-Tempini, M. L., Rankin, K. P., Woolley, J. D., Rosen, H. J., Phengrasamy, L., & Miller, B. L. (2004). Cognitive and behavioral profile in a case of right anterior temporal lobe neurodegeneration, *Cortex, 40*, 631–644.

Greenberg, D. L., Ogar, J. M., Viskontas, I. V., Gorno-Tempini, M. L., Miller, B., & Knowlton, B. J. (2011). Multimodal cuing of autobiographical memory in semantic dementia. *Neuropsychology, 25*, 98–104.

Grober, E., & Buschke, H. (1987). Genuine memory deficits in dementia. *Developmental Neuropsychology, 3*, 13–36.

Grossman, M., Payer, F., Onishi, K., White-Devine, T., Morrison, D., D’Esposito, M., … Alavi, A, (1997). Constraints on the cerebral basis for semantic processing from neuroimaging studies of Alzheimer’s disease. *Journal of Neurology, Neurosurgery, and Psychiatry, 63*, 152–158.

Hailstone, J. C., Ridgway, G. R., Barlett, J. W., Goll, J. C., Buckley, A. H., Crutch, S. J., & Warren, J. D. (2011). Voice processing in dementia: A neuropsychological and neuroanatomical analysis. *Brain, 134*(9), 2535-2547.

Halpern, C., McMillan, C., Moore, P., Dennis, K., & Grossman, M. (2003). Calculation impairment in neurodegenerative diseases. *Journal of the Neurological Sciences, 208*, 31–38.

Happé, F. G. (1994). An advanced test of theory of mind: understanding of story characters’ thoughts and feelings by able autistic, mentally handicapped, and normal children and adults. *Journal of Autism and Developmental Disorders, 24*, 129–154.

Hardy, C. J., Buckley, A. H., Downey, L. E., Lehmann, M., Zimmerer, V. C., Varley, R. A., …Warren JD (2016). *Journal of Alzheimer's Disease, 50*(2), 359-71.

Hodges, J. R., Martinos, M., Woollams, A. M., Patterson, K., & Adlam, A. L. R. (2008). Repeat and point: differentiating semantic dementia from progressive non-fluent aphasia. *Cortex, 44,* 1265–1270.

Hodges, J. R., & Patterson, K. (1995). Is semantic memory consistently impaired early in the course of Alzheimer’s disease? Neuroanatomical and diagnostic implications. *Neuropsychologia, 33,* 441–459.

Hodges, J. R., Patterson, K., Ward, R., Garrard, P., Bak, T., Perry, R., & Gregory, C. (1999). The differentiation of semantic dementia and frontal lobe dementia (temporal and frontal variants of frontotemporal dementia) from early Alzheimer’s disease: A comparative neuropsychological study. *Neuropsychology, 13,* 31–40.

Hooper, H. E. (1979). *The hooper visual organization test (VOT) Manual*. Western Psychological Services.

Howard, D. (1992). *The pyramids and palm trees test: A test of semantic access from words and pictures*. Thames Valley Test Company.

Hsieh, S., Foxe, D., Leslie, F., Savage, S., Piguet, O., & Hodges, J. R. (2012). Grief and joy: Emotion word comprehension in the dementias. *Neuropsychology, 26*(5), 624-630.

Ikeda, M., Patterson, K., Graham, K. S., Lambon Ralph, M. A., & Hodges, J. R. (2006). A horse of a different colour: Do patients with semantic dementia recognise different versions of the same object as the same? *Neuropsychologia, 44*, 566-575.

Isaacs, B., Kennie, A. T. (1973). The set test as an aid to the detection of dementia in old people. *The British Journal of Psychiatry: The Journal of Mental Science, 123*, 467–470.

Jackson, M., Warrington, E. K. (1986). Arithmetic skills in patients with unilateral cerebral lesions. *Cortex, 22*, 611–620.

Kaplan, E., Goodglass, H., & Weintraub S (1983). *Boston naming test*. Lea & Febiger.

Kapur, N., Young, A., Bateman, D., & Kennedy, P. (1989). Focal retrograde amnesia: A long term clinical and neuropsychological follow-up. *Cortex, 25*, 387–402.

Kay, J., Lesser, R., & Coltheart, M. (1996). Psycholinguistic assessments of language processing in aphasia (PALPA): An introduction. *Aphasiology, 10*, 159–180.

Kertesz, A. (1982). *Western aphasia battery test manual*. Grune & Stratton.

Kertesz, A. (2006). W*estern Aphasia Battery - Revised (WAB-R): Examiner’s manual.* Canada: PsychCorp Harcort Assessment Incorporation.

Kongs, S. K., Thompson, L. L., Iverson, G. L., & Heaton, R. K. (2000). *WCST-64: Wisconsin card sorting test - 64 card version professional manual*. PAR.

Krikorian, R., Bartok, J., & Gay, N. (1994). Tower of london procedure: A standard method and developmental data. *Journal of Clinical and Experimental Neuropsychology, 16*, 840–850.

Libon, D. J., Matson, R. E., Glosser, G., Kaplan, E., Malamut, M., Sands, L. P., ... Cloud, B. S. (1996). A nine word dementia version of the California verbal learning test. *The Clinical Neuropsychologist, 10,* 237–244.

Libon, D. J., Rascovsky, K., Gross, R. G., White, M. T., Xie, S. X., Dreyfuss, M., & Grossman, M. (2011). The philadelphia brief assessment of cognition (PBAC): A validated screening measure for dementia. *The Clinical Neuropsychologist,* *25,* 1314–1330.

Lindeboom, J. (2002). Visual association test to detect early dementia of the Alzheimer type. *Journal of Neurology, Neurosurgery & Psychiatry, 73,* 126–133.

Lough, S., Kipps, C. M., Treise, C., Watson, P., Blair, J. .R, & Hodges, J. R. (2006). Social reasoning, emotion and empathy in frontotemporal dementia. *Neuropsychologia, 44*, 950–958.

Magerova, H., Vyhnalek, M., Laczo, J., Andel, R., Rektorova, I., Kadlecova, A., & Hort, J. (2014). Odor identification in frontotemporal lobar degeneration subtypes. *American Journal of Alzheimer's Disease and Other Dementias, 29*(8), 762-768.

Magnin, E., Sylvestre, G, Lenoir, F., Dariel, E., Bonnet, L., Choppard, G., … Rumach, L. (2012). Logopenic syndrome in posterior cortical atrophy. *Journal of Neurology, 260*(2), 528-533.

Mandelli, M. L., Caverzasi, E., Binney, R., Henry, M. L., Lobach, I., Block, N., … Gorno-Tempini (2014). Frontal white matter tracts sustaining speech production in primary progressive aphasia. *The Journal of Neuroscience, 34*(29), 9754-9767.

Mandelli, M. L., Vitali, P., Santos, M., Henry, M., Gola, K., Rosenberg, L., … Gorno-Tempini (2014). Two insular regions are differentially involved in behavioral variant FTD and nonfluent/agrammatic variant PPA. *Cortex, 74,* 149-157.

Manly T., Hawkins, K., Evans, J., Woldt, K., & Robertson, I. H. (2002). Rehabilitation of executive function: facilitation of effective goal management on complex tasks using periodic auditory alerts. *Neuropsychologia, 40*, 271–281.

Maruta, C., Makhmood, S., Downey, L. E., Golden, H. L., Fletcher, PD, Witoonpanich, P., … Warren, J. D. (2014). Functional neuroanatomy of speech signal decoding in primary progressive patients. *Journal of the Neurological Sciences, 347*(102), 345-348.

Mathuranath, P. S., Nestor, P. J., Berrios, G. E., Rakowicz, W., & Hodges, J. R. (2000). A brief cognitive test battery to differentiate Alzheimer’s disease and frontotemporal dementia. *Neurology,* 55, 1613–1620.

McCarthy, R., Warrington, E. K. (1984). A two-route model of speech production. evidence from aphasia. *Brain: A Journal of Neurology, 107*(Pt 2), 463–485.

McDonald, S., Bornhofen, C., Shum, D., Long, E., Saunders, C., & Neulinger, K. (2006). Reliability and validity of the awareness of social inference test (TASIT): A clinical test of social perception. *Disability and Rehabilitation, 28*, 1529–1542.

Meligne, D., Fossard, M., Belliard, S., Moreaud, O., Duvignau, K., & Demonet, J. F. (2011). verb production during action naming in semantic dementia. *J Commun Disord, 44*(3), 379-91.

Merck, C., Charnallet, A., Auriacombe, S., Belliard, S., Hahn-Barma, V., Kremin, H., … Siegwart, H (2011). La batterie d’évaluation des connaissances sémantiques du GRECO (BECS-GRECO): Validation et données normatives. *Revue de neuropsychologie, 3*, 235.

Meyers, J., & Meyers, K. (1994). Meyers Scoring System for the Rey Complex Figure Test and the Recognition Trial. Odessa: Psychological Assessment Resources.

Meyer, A. M., Snider, S.F., Campbell, R. E., & Friedman, R. (2015). Phonological short-term memory in logopenic variant primary progressive aphasia and mild Alzheimer's disease. *Cortex, 71,* 183-189.

Miceli, G., Laudanna, A., Burani, C., & Capasso, R. (1994). Batteria perl’analisi deideficit afasici: B.A.D.A. [battery for the analysis of the aphasic deficit]. *Milan: CEPSAG—Universita` Cattolica del Sacro Cuore*

Miller, L. A., Hsieh, S., Lah, S., Savage, S., Hodges, J.R., Piguet, O. (2012). One size does not fit all: Face emotion processing impairments in semantic dementia, behavioural-variant frontotemporal dementia and Alzheimer’s disease are mediated by distinct cognitive deficits. *Behavioural Neurology, 25*, 53–60.

Mioshi, E., Hsieh, S., Savage, S, Hornberger, M., Hodges, J. R. (2010). Clinical staging and disease progression in frontotemporal dementia. *Neurology, 74,* 1591-1597

Morris, J. C., Edland, S., Clark, C., Galasko, D., Koss, E., Mohs, R., … Heyman, A. (1993). The consortium to establish a registry for Alzheimer’s disease (CERAD): Part IV. Rates of cognitive change in the longitudinal assessment of probable Alzheimer’s disease. *Neurology,* *43,* 2457–2457.

Nakase-Thompson, R., Manning, E., Sherer, M., Yablon, S. A., Gontkovsky, S. L. T., & Vickery, C. (2005). Brief assessment of severe language impairments: Initial validation of the Mississippi aphasia screening test. *Brain Injury, 19*, 685–691.

Nelson, H. E. (1982). *National adult reading test (NART): For the assessment of premorbid intelligence in patients with dementia* *manual*. Windsor, UK: NFER-Nelson.

Nelissen, N., Pazzaglia, M., Vandenbulcke, M., Sunaert, S,. Fannes, K., Dupont, P., … Vandenberghe, R. (2010. Gesture discrimination in primary progressive aphasia: The intersection between gesture and language processing pathways. *Journal of Neuroscience, 30*(18), 6334-6341.

Nishio, Y., Kazui, H., Hashimoto, M., Shimizu, K., Onouchi, K., Mochio, S., … Mori, E. (2006). Actions anchored by concepts: Defective action comprehension in semantic dementia. *Journal of Neurology, Neurosurgery, & Psychiatry, 77*(12), 1313-1317.

Omar R., Hailstone J.C., Warren J.E., Crutch S.J., & Warren J.D. (2010). The cognitive organisation of music knowledge: a clinical analysis. *Brain, 133(Pt 4)*, 1200–1213.

Olofsson, J. K., Rogalski, E., Harrison, T., Mesulam, M. M., Gottfried, J. A. (2013). A cortical pathway to olfactory naming: evidence from primary progressive aphasia. *Brain, 136*, 1245–1259.

Osborne, R. A., Sekhon, R., Johnston, W., & Kalra, S. (2014). Screening for frontal lobe and general cognitive impairment in patients with amyotrophic lateral sclerosis. *Journal of the Neurological Sciences, 336*, 191–196.

Ossenkoppele, R., Pijnenburg, Y. A. L., Perry, D. C., Cohen-Sheehy, B. I., Scheltens, M. E., Vogel, J. W., … Rabinovici, G. D. (2015). The behavioural/dysexecutive variant of Alzheimer's disease: Clinical, neuroimaging, and pathological features. *Brain, 138,* 2732-2749.

O’Sullivan, M., Guilford, J. P., & Mille, R. D. (1965). *The measurement of social intelligence*. University of Southern California.

Peña-Casanova, J., Blesa, R., Aguilar, M., Gramunt-Fombuena, N., Gómez-Ansón, B., Oliva, R., … Neuronorma Study Team (2009). Multicenter normative studies (Neuronorma project: methods and sample characteristics. *Arch. Clin. Neuropsychol, 24,* 307–319.

Piolino, P., Desgranges, B., Belliard, S,. Matuszewski, V., Lalevee, C., De la Sayette, V., \* Eustache, F. (2003). Autobiographical memory and autonoetic consciousness: Triple dissociation in neurodegenerative diseases. *Brain, 126,* 2203-2219.

Possin, K. L., Laluz, V. R., Alcantar, O. Z., Miller, B. L., & Kramer, J. H. (2011). Distinct neuroanatomical substrates and cognitive mechanisms of figure copy performance in Alzheimer’s disease and behavioral variant frontotemporal dementia. *Neuropsychologia, 49,*  43–48.

Price, C. C., Garrett, K. D., Jefferson, A. L., Cosentino, S., Tanner, J. J., Penney, D. L., … Libon D. J. (2009). Leukoaraiosis severity and list-learning in dementia. *The Clinical Neuropsychologist, 23*, 944–961.

Price, C. C., & Grossman, M. (2005). Verb agreements during on-line sentence processing in Alzheimer’s disease and frontotemporal dementia. *Brain and Language, 94*, 217–232.

Quinette, P., Guillery-Girard, B., Desgranges, B., de la Sayette, V., Viader, F., & Eustache, F. (2003). Working memory and executive functions in transient global amnesia. *Brain, 126*, 1917–34.

Reitan, R. M. (1958). Validity of the trail making test as an indicator of organic brain damage. *Perceptual and Motor Skills, 8*, 271-276.

Reverberi, C., Capitani, E., & Laiacona, M. (2004). Variabili semantico-lessicali relative a tutti gli elementi di una categoria semantica: indagine su soggetti normali italiani per la categoria “frutta.” Giornale Italiano Di Psicologia, 497– 522. Retrieved from http://dx.doi.org/10.1421/16262

Rey, R. (1958). *The clinical examination in psychology*. University Presses of France: Paris.

Riddoch, M. J., & Humphreys, G. W. (1993). *BORB: Birmingham object recognition battery*. Hove, United Kingdom: Lawrence Erlbaum.

Robertson, I. H., Ward, T., & Ridgeway, V. (1994). *The test of everyday attention*. Flempton, England: Thames Valley Test Company.

Roediger, H. L., McDermott, K. B. (1995). Creating false memories: remembering words not presented in lists. *Journal of Experimental Psychology: Learning, Memory, and Cognition* *21,* 803–814.

Rohrer, J. D., Sauter, D., Scott, S., Rosser, M. N., & Warren, J. D. (2012).Receptive prosody in nonfluent primary progressive aphasias. *Cortex, 48*(3), 308-316.

Roth, M., Tym, E., Mountjoy, C. Q., Huppert, F. A., Hendrie, H., Verma, S., & Goddard, R. (1986). CAMDEX. A standardised instrument for the diagnosis of mental disorder in the elderly with special reference to the early detection of dementia. *The British Journal of Psychiatry: The Journal of Mental Science, 149*, 698–709.

Rosen, H. J., Gorno-Tempini, M. L., Goldman, W. P., Perry, R. J., Schuff, N., Weiner, M., & Miller, B. L. (2002). Patterns of brain atrophy in frontotemporal dementia and semantic dementia. *Neurology*, 58, 198-208.

Sager, M. A., Hermann, B. P., La Rue, A., & Woodard, J. L. (2006). Screening for dementia in community-based memory clinics. *WMJ: official publication of the State Medical Society of Wisconsin, 105*, 25–29.

Sager, M. A., Kato, M., & Kashima, H. (1992). Frontal lobe injury and word fluency. *Higher Brain Function Research, 12,* 223–231.

Sajjadi, S. A., Patterson, K., Arnold, R. J., Watson, P. C., & Nestor, P. J. (2012). Primary progressive aphasia: A tale of two syndromes and the rest. *Neurology, 78*, 1670–1677.

Savage, S., Hsieh, S., Leslie, F., Foxe, D., Piguet, O., & Hodges, J. R. (2013). Distinguishing subtypes in primary progressive aphasia: Application of the sydney language battery. *Dementia and Geriatric Cognitive Disorders, 35*, 208–218.

Scarpina, F., & Tagini, S. (2017). The stroop color and word test. *Frontiers in Psychology, 8,* 1-8.

Schmidt, M. (1996). *Rey auditory verbal learning test (RAVL): A Handbook*. Western Psychological Services.

Schonell, F. J. (1960). *Graded word reading test.* Edinburgh: Oliver & Boyd.

Schretlen, D. (2010). *Modified wisconsin card sorting Test: M-WCST.* Professional Manual. PAR.

Snodgrass, J. G., Vanderwart, M. (1980). A standardized set of 260 pictures: Norms for name agreement, image agreement, familiarity and visual complexity. *Journal of Experimental Psychology: Human Learning and Memory, 6*, 174-215.

Snowden, J. S. (2004). Knowledge of famous faces and names in semantic dementia. *Brain, 127* 860–872.

Snowling, M. J., Stothard, S. E., McLean, J., Thames, & Valley Test Company (1996). *Graded nonword reading test*. Bury St. Edmonds: Thames Valley Test.

Soukup, V. M., Bimbela, A., & Schiess, M. C. (1999). Recognition memory for faces: Reliability and validity of the Warrington recognition memory test (RMT) in a neurological sample. *Journal of Clinical Psychology in Medical Settings, 6*, 287–293.

Stern, R. A., & White, T. (2003). *Neuropsychological  assessment battery (NAB).* Lutz, Florida: Psychological Assessment Resources.

Stone, V. E., Baron-Cohen, S., & Knight, R. T. (1998). Frontal lobe contributions to theory of mind. *Journal of Cognitive Neuroscience, 10*, 640–656.

Stopford, C. L., Snowden, J. S., Thompson, J. C., & Neary, D. (2007). Distinct memory profiles in Alzheimer’s disease. *Cortex, 43*, 846–857.

Strauss, E., Sherman, E. M. S., Spreen, & O. (2007). *A compendium of neuropsychological tests: administration, norms, and commentary* (Third ed.). New York, NY: Oxford University Press.

Sunderland, T., Hill, J. L., Mellow, A. M., Lawlor, B. A., Gundersheimer, J., Newhouse, P. A., & Grafman, J. H. (1989). Clock drawing in Alzheimer’s disease: A novel measure of dementia severity. *Journal of the American Geriatrics Society, 37*, 725–729.

Thompson, C. K. (2011). *Northwestern assessment of verbs and sentences (NAVS)*. Evanston, IL: Aphasia and Neurolinguistics Laboratory Northwestern University School of Communication.

Thompson, C. K., & Weintraub, S. (2014). Northwestern naming battery (NNB). *Northwestern University Evanston.*

Visch-Brink, E., Stronks, D., & Denes, G. (2005). *Semantische associatie test handleiding*. Amsterdam: Pearson.

Warrington, E.K. (1991). *The visual object and space perception battery VOSP manual*. Harcourt Assessment ccop.

Warrington, E. K. (1996). *The camden memory tests*. Psychology Press.

Warrington, E. K. (1997). The graded naming test: A restandardisation. *Neuropsychol Rehabilitation, 7*, 143–146.

Warrington, E. K., & Crutch, S. J. (2007). A within-modality test of semantic knowledge: The size/weight attribute test. *Neuropsychology, 21*, 803–811.

Warrington, E. K., McKenna, P., & Orpw, L. (1998). Single word comprehension: a concrete and abstract word synonym test. *Neuropsychological Rehabilitation, 8*, 143–154.

Wechsler, D. (1997a). *Wechsler adult intelligence scale-III*. New York, NY: Psychological Corporation Harcourt Brace & Company.

Wechsler, D. (1997b). *Wechsler memory scale (WMS-III)*. San Antonio, TX: Psychological corporation

Wechsler, D. (1999). *Wechsler abbreviated scale of intelligence.* New York, NY: The Psychological Corporation: Harcourt Brace & Company.

Wedderburn, C., Wear, H., Brown, J., Mason, S. J., Barker, R. A., Hodges, J. R., & Williams- Gray, C. (2008).The utility of the Cambridge Behavioural Inventory in neuro- degenerative disease. *Journal of Neurology, Neurosurgery, and Psychiatry, 79,* 500–503.

Weintraub, S., Mesulam, M. M., Wieneke, C., Rademaker, A., Rogalski, E. J., & Thompson, C. K. (2009). The northwestern anagram test: measuring sentence production in primary progressive aphasia. *American Journal of Alzheimer’s Disease & Other Dementias, 24*, 408–416.

Weniger, D., Willmes, K., Huber, W., & Poeck, K. (1981). The aachen aphasia test: Reliability and inter-rater agreement. *Der Nervenarzt, 52*, 269–277.

Whiteley, A. M., & Warrington, E. K. (1978). Selective impairment of topographical memory: A single case study. *Journal of Neurology, Neurosurgery, and Psychiatry, 41,* 575–78.

Whittaker, J. F., Connell, J., & Deakin, W. (1994). Receptive and expressive social communication in schizophrenia. *Psychopathology, 27*, 262–267.

Wilson, B. A., Alderman, N., & Burgess, P. W. (1996). *Behavioural assessment of the dysexecutive syndrome (BADS)*. Bury St. Edmunds: Thames Valley Test Company.

Winner, E., Brownell, H., Happé, F., Blum, A., & Pincus, D. (1998). Distinguishing lies from jokes: theory of mind deficits and discourse interpretation in right hemisphere brain-damaged patients. *Brain and Language, 62*, 89–106.