| 1 | Applications of the R.A.I.S.E. Assessment Framework to Support the Process |
|----|--|
| 2 | of Assessment in Primary Progressive Aphasia |
| 3 | |
| 4 | Jeanne Gallée ^{1,2,3} , Anna Volkmer ⁴ , Anne Whitworth ⁵ , Deborah Hersh ⁶ , & Jade Cartwright ⁵ |
| 5 | |
| 6 | ¹ Department of Medicine, University of Washington, Seattle |
| 7 | ² Alzheimer's Disease Research Center, University of Washington, Seattle |
| 8 | ³ Department of Communication Sciences and Disorders, MGH Institute of Health Professions |
| 9 | ⁴ Department of Psychology and Language Science, University College London, UK |
| 10 | ⁵ School of Health Sciences, University of Tasmania, Launceston, Australia |
| 11 | ⁶ Speech Pathology, Curtin School of Allied Health, Curtin University, Perth, Australia |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | Keywords: primary progressive aphasia; therapeutic assessment; person-centered care |
| 18 | |
| 19 | |
| 20 | |
| 21 | |
| 22 | |
| 23 | |

24 Abstract

25

26 **Purpose:** To establish the extent to which person-centered processes are integrated in assessment 27 procedures, the R.A.I.S.E. Assessment framework was used to evaluate measures that are 28 typically used when assessing people living with PPA. 29 30 **Method:** Forty-five assessment tools were evaluated through the lens of the five R.A.I.S.E. 31 principles: building the client-clinician **R**elationship, **A**ssessment choices, **I**ncluding the client 32 and care partners, providing Support, and Evolving procedures to match client capability and 33 progression. The principles were operationalized as questions for raters to evaluate whether a 34 measure met this aspect of the R.A.I.S.E. Assessment framework. 35 36 **Results:** Ten measures commonly used in the assessment of people living with PPA met all 37 R.A.I.S.E. principles. These measures centered upon the elicitation of naturalistic discourse, 38 conversation, client self-report, and clinician ratings. Thirteen measures did not meet any of the 39 criterion and represented standardized evaluation procedures do not provide the opportunity to 40 connect to the client, elicit or provide feedback or support, nor to adapt in response to need or 41 performance. 42 43 **Conclusions:** Whether using standardized or informal assessment tools, a relational and 44 qualitative approach to providing assessment is paramount to promote client success and

45 therapeutic engagement. We provide guidance through the R.A.I.S.E. framework on practices to

46 cultivate person-centered processes of assessment in the care of people living with PPA.

47 Introduction

48 The recently introduced R.A.I.S.E. Assessment framework (Gallée et al., 2023) provides a 49 multidimensional person-centered approach to comprehensive assessment of people living with 50 primary progressive aphasia (PPA). Moreover, this framework highlights the necessity for the 51 clinician to consider the following features when conducting assessments: (1) build the 52 Relationship with the client, (2) make conscious choices about the formality and standardization 53 of Assessment approaches and types, (3) Include and incorporate the client and care partner's 54 feedback, (4) provide Support to the client and actively advocate to enhance their agency, and (5) 55 ensure that the provided assessment appropriately Evolves over time as the condition progresses 56 and the needs of the client change (Gallée et al., 2023). In this paper, we apply the R.A.I.S.E. 57 assessment framework to provide in-depth analysis of assessment tools routinely used in the 58 evaluation of speech, language, and communication symptoms for PPA. Through this analysis, 59 we aim to establish the extent to which the principles of R.A.I.S.E. are addressed by each tool 60 and establish the relative overlap of the framework's principles and the assessments as they exist 61 independently (e.g., based on the instructions provided/original formatting). This discussion will help inform clinical decision-making by providing guidance to clinicians as to which adaptations 62 63 can be made to enhance a better fit against the R.A.I.S.E. Assessment framework and to inform 64 the future development of new assessment tools.

The R.A.I.S.E. Assessment framework was developed to provide clinical guidance for the assessment process when working with people living with PPA. Speech-language assessment for PPA is an indispensable feature of establishing a diagnosis, monitoring change in symptoms, and informing treatment targets (Gallée & Volkmer, 2023). For the latter function, progress or decline following intervention is evaluated by comparing pre- and post-therapy assessment

70 outcomes. In a review by Volkmer et al. (2020), measures typically used to examine the effects 71 of functional interventions for PPA broadly fell into the following categories: interviews and 72 questionnaires, formal tests of language, conversation analysis, and rating scales largely based on 73 clinician judgement. For a progressive condition with both variability and uncertainty, the need 74 to select efficacious and person-centered assessment tools consistent with the principles of the 75 R.A.I.S.E. Assessment framework is essential to ensure assessment itself is supportive and of 76 therapeutic value (Hersh et al., 2013). There is therefore a direct need to evaluate the extent to 77 which assessment tools commonly used in PPA, and components of the assessment process (e.g., 78 case history), align with the framework's principles. In addition to what is evaluated in 79 assessment, we set forth to evaluate the *process* of assessment and *how* we assess, including how 80 these elements are considered in commonly used tools. When we read an assessment manual, we 81 need to go beyond the standardized protocol - we need to think about the 'tool' and the 'process' 82 from a relational and supportive perspective. This study further aimed to examine how 83 assessment protocols explicitly involve the person and their caregivers in discussion around the 84 "process" of assessment and whether this process is delivered in a supportive manner. As the 85 R.A.I.S.E. Assessment framework centers on providing person-centered evaluation, we 86 hypothesize that a predictor of alignment with its principles is the extent to which the assessment 87 measures a client's participation rather than impairment.

88 Methods

The assessments analyzed in this paper were drawn from those provided in Henry and Grasso (2018), Gallée et al. (2023), and Volkmer et al. (in preparation), as exemplars of tools that are commonly used to diagnose, evaluate, and monitor speech, language, and communication outcomes in PPA. The assessments were organized by the domains of speech,

| 93 | language, and communication that are typically of interest when it comes to providing a |
|-----|--|
| 94 | diagnosis of PPA as well as identifying one of the established three subtypes (e.g., semantic, |
| 95 | nonfluent, or logopenic). Of note, certain assessments are subtests drawn from comprehensive |
| 96 | assessments of aphasia, such as the "Picnic Scene" task from the Western Aphasia Battery- |
| 97 | Revised (WAB-R; Kertesz, 2020) and the Aphasia Impact Questionnaire-21 (AIQ-21; Swinburn |
| 98 | et al., 2019). All assessments were evaluated upon the parameters outlined in Table 1. Responses |
| 99 | to each of these prompts were scored on a two-point scale: yes (1) and no (0). For all |
| 100 | components, responses were coded as $yes = 1$ or $no = 0$ for each criterion, resulting in a |
| 101 | maximum possible score of 2 for each principle. A total score was calculated as the sum of all |
| 102 | principle scores, where the possible range of scores was 0-10. Consensus was first established |
| 103 | through discussion for 15% of the assessment protocols in a discussion by two authors (J.G. and |
| 104 | J.C.). Once joint reliability on these 15% tools was established, one author (J.G.) coded the |
| 105 | remaining assessments with 85% integrated reliability. Codes were then reviewed by the other |
| 106 | author (J.C.) where no corrections were made. |
| 107 | <insert 1="" table=""></insert> |
| 108 | Results |

A total of 45 assessment tools were evaluated in the context of the R.A.I.S.E. Assessment framework using the criteria described above. Of the 45 assessments, 13 did not meet the criteria of any of the five components. Of the remaining 32 tools, 15 met the principles of *R*elationship, 17 met the criteria of enabling instructions to be tailored or adapted to the person during Assessment (14 involved formal, standardized assessment which precluded this), 15 met all criteria of Inclusion, 16 met the criteria of Support, and 13 met the criteria of *E*volve (see Table 2). 116

117

<insert Table 2>

<Figure 1>

118 More than half of assessments partially met the criterion of the specific R.A.I.S.E. 119 components, i.e., scored 1 of the 2 possible points for a given principle. For example, CLQT+ 120 "Personal Facts" partially met criterion for Assessment as the clinician has some flexibility to 121 probe when a client's response is incomplete or delayed while sticking to scripted prompts; this 122 same assessment also met criterion E1 but not E2 for Evolve as only the verbal modality is 123 scored as accurate), resulting in a total of 27 assessments meeting partial criterion for certain 124 principles. A total of 10 assessments met all evaluated aspects of R.A.I.S.E. These consisted of 125 assessment tools and components that elicited naturalistic language samples (e.g., conducting a 126 targeted case history and eliciting self-reports about communicative abilities), clinician rating 127 scales (e.g., the PASS; Sapolsky et al., 2014), and self-rating scales, (e.g., the CAT-2 "Aphasia 128 Impact Questionnaire 21"; Swinburn et al, 2019). More broadly, thirteen assessment tools were 129 in strong alignment with the R.A.I.S.E. Assessment framework. An assessment was determined 130 to be in strong alignment with R.A.I.S.E. when the tool met at least one of the criteria for each of 131 the five principles (Figure 1).

132

<insert Table 3>

133 Relationship

Of all 45 assessments, two met partial criteria and 15 met both R1 and R2. Both the CUDP (Whitworth et al., 2015) and CLQT+ "Personal Facts" (Helm-Estabrooks, 2017) met R1, where clients were asked questions that would allow their clinician to understand them in the absence of the clinician being able to respond meaningfully to this information (see Table 2). Notably, assessment tools that met full criterion for *R*elationship predominantly consisted of observational scales for clinicians to fill out based on a variety of conversation-based activities
(e.g., the ASA [Simmons-Mackie et al., 2004] or PASS [Sapolsky et al., 2014]). Outliers to this
trend were the AIQ-21 (Swinburn et al., 2019) and the "Conversational Questions" subtest of the
WAB-R (Kertesz, 2020). The principle of *R*elationship did not correlate significantly with any of
the other principles.

144 Assessment

145 Three met partial criteria met both criteria for Assessment. Partial credit was assigned to 146 the CUDP (Whitworth et al., 2015), the WAB-R "Picnic Scene", and CLQT+ "Personal Facts" 147 as these measures allowed clinicians to provide cues or prompts to identify clients' strengths and 148 support needs (A2). With exception for the Aphasia Needs Assessment (ANA; Garrett & 149 Beukelman, 2006), the same measures that met criterion for *Relationship* met criterion for 150 Assessment by additionally tailoring scripts to the client's unique needs (A1). The principle of 151 Assessment did not correlate significantly with any of the other principles. 152 Inclusion 153 While no tools met partial criteria, a total of 15 met both criteria for Inclusion. Consistent 154 with the outcomes for *Relationship* and *Inclusion*, the majority of these measures consisted of 155 observational rating scales and one self-report scale (AIQ-21; Swinburn et al., 2019). The 156 principle of *Inclusion* did not correlate significantly with any of the other principles. 157 Support 158 Nine met partial criteria by meeting the criteria of promoting advocacy for the client by 159 identifying individual strengths, challenges, and needs (S1). Sixteen additional measures met full

160 criterion for *Support*, largely overlapping with the assessment tools that met all components for

161 Relationship, Assessment, and Inclusion. The principle of Support strongly correlated

162 significantly with Evolve at r(43) = .64 (p <.05).

163 Evolve

164 Twenty-three assessment tools met partial criteria for *E*volve and an additional twelve165 met all criteria.

166 Co-Occurrence of R.A.I.S.E. Principles

167 Beyond the 11 assessments that met all criterion, there were nine assessment tools that 168 met at least one criterion for two or more principles without meeting full criteria. Seven of these 169 assessment tools met criteria for both Relationship and Support. Of these, only the "Spontaneous 170 Speech" subtest of the Progressive Aphasia Language Scale (PALS; Leyton et al., 2011) and the 171 Communication Confidence Rating Scale for Aphasia (CCRSA; Cherney et al., 2011; Babbitt et 172 al., 2011) met all five principles of R.A.I.S.E. Notably, for the remaining seven assessments, the 173 respective of combinations of the R.A.I.S.E. principles for whom criteria was met only occurred 174 once (see Table 2).

175 Discussion

The purpose of this study was to evaluate how commonly used assessment tools, and components of the assessment process, are in line with the principles of the R.A.I.S.E. Assessment framework. Our results demonstrated that many standardized assessments, when used on their own, do not fulfill the principles of R.A.I.S.E. and are at risk of undermining the therapeutic relationship. Conversely, approximately a quarter of assessment tasks showed strong alignment with the R.A.I.S.E. framework (e.g., where at least partial criterion was met for each

182 of the five principles) and were more inherently equipped to enable therapeutic assessment, that

is "assessment of support, with support, and as support" (Hersh et al., 2013, p. 162).

Differentiating assessment tools and components in this way provides valuable insights into assessment practices. Importantly, the evaluation process stepped beyond consideration of the psychometric properties of assessment tools, to consider the more relational, supportive, and therapeutic aspects of assessment. We will discuss key findings and how they can be used to guide assessment practice, propose modifications to existing assessment processes and position the development of new assessment tools as a priority for action in the PPA field.

190 Using R.A.I.S.E. to Guide Assessment Practice

191 The assessment tools and components evaluated fell along a continuum of low to high 192 alignment with the R.A.I.S.E. Assessment framework, providing an objective framework to 193 guide assessment practice and judicious selection of assessment tools in practice. The assessment 194 tools at the lower end of the continuum tended to be standardized in nature and designed for 195 diagnostic and classification purposes, while those at the higher end were frequently informal 196 and highly oriented towards client participation in more naturalistic paradigms. Knowing where 197 different assessment tools fall along the continuum and how they align with R.A.I.S.E. principles 198 allow a more considered approach to planning and facilitating assessment sessions and 199 interactions. For example, a small number of assessments were identified that intrinsically 200 promote Relationship, such as a case history and personal narratives. As such, these assessments 201 have value in the early stages of the assessment process to build rapport and relationships, before 202 administering more standardized assessments, like the WAB-R (Kertesz, 2020) and CAT 203 (Swinburn et al., 2022). The importance of establishing rapport prior to administration is 204 recommended in the CAT manual (Swinburn et al., 2022), affirming that what comes before and 205 after standardized assessment is essential!

206 Inclusion of client and clinician feedback in the assessment process was also evaluated. As 207 anticipated, many formal assessments constrained provision of feedback during the assessment 208 process to comply with standardization of administration. This is important for allowing 209 comparison to a norm but restricts opportunities within the assessment for support and mutual 210 benefit. This is especially true of assessments that do not allow for the clinician to provide 211 tailored cueing when the client is challenged, produces errors, or does not provide a response. 212 For example, in the Cognitive-Linguistic Quick Test PLUS (CLQT+; Helm-Estabrooks, 2017) 213 "Generative Naming" task, for a client who has expressed concern over their performance, only 214 the following direction is deemed acceptable: "I'm not allowed to help you. Just do the best you 215 can." While many clinicians will naturally provide additional support through personalized 216 commentary (e.g. "After we have finished, we can talk this through"), this guidance is rarely 217 presented or discussed in test manuals. The CAT (Swinburn et al., 2022) is one exception, where 218 the need for care when administering standardized assessments is explicitly acknowledged, 219 encouraging responsiveness to a person's needs while adhering to the task instructions. Swinburn 220 et al. acknowledge giving feedback or a summary of performance at the end of the assessment, 221 highlighting the need to emphasize the positives and to acknowledge any negative emotions that 222 were expressed during the assessment, for example, acknowledging that those feelings are 223 commonly experienced by people with aphasia (or PPA). Examples of phrases are provided, 224 drawing on the work of Cheng and colleagues (2020), for example, "I know it's tough now. 225 We're here to support you. We'll do everything we can to help." (p.46). If the person 226 demonstrates engagement with the results, providing a summary is recommended, however, a 227 template for this is not provided. Such forms of feedback acknowledge, include, and support the 228 client, setting the foundation for a long-term relationship between client and clinician.

229 Explicit opportunities to Support, such as those described above, and advocate for the client 230 were rarely considered in assessment protocols, as this was dependent on the clinician's ability to 231 determine a client's unique strengths, challenges, needs, and goals, based on assessment 232 prompts. This principle is fundamental in clinicians supporting clients and their networks to 233 "use" the assessment information gathered (assessment as support; Hersh et al., 2013). Social 234 network analysis is an example of an assessment tool that allows clients and clinicians to work 235 collaboratively (promoting Relationship) to create an accessible output and resource through the 236 assessment process (aligning with Support and Advocacy; Vickers et al., 2010; Hillary & 237 Northcott, 2017). The relative size and quality of a person's social network is visualized, 238 supporting functional and person-centered goal setting and outcome measurement, while helping 239 the person with PPA and their family advocate for the services and supports they need to "grow" 240 their social network and strengthen connectedness.

Finally, the extent to which an assessment *E*volves over time was analyzed. Certain standardized assessments of select modalities, such as in confrontation naming, help the clinician track more nuanced change over time. A positive example of a standardized assessment that is amenable to changes in naming ability is the CLQT+ *"Confrontation Naming"* subtest (Helm-Estabrooks, 2017), in which the clinician has the opportunity to provide credit for partially correct responses. Such a scoring modification can easily be, and anecdotally often is,

247 implemented by clinicians in practice.

An exemplar of an assessment with strong R.A.I.S.E. alignment is the AIQ-21 (Swinburn et al., 2019), which provides clear direction to the clinician, noting explicitly how the "manner" of AIQ administration should feel "qualitatively different" in mood and tone to the standardized components of the assessment. Importantly, the authors highlight that "...as much support,

252 encouragement, and feedback as possible" should be provided during administration (p.41). 253 Examples of supportive features are provided, including rewording and repeating questions, 254 using gesture, and smiling during administration (aligning with Relationship and Support). As 255 demonstrated in Table 1, informal assessments of naturalistic language can also meet all 256 components of the R.A.I.S.E. Assessment framework. Finally, both client and clinician-based 257 rating scales, such as the PASS (Sapolsky et al., 2014) are amenable to the principles of the 258 framework in that they comprehensively capture a client's unique strengths, challenges, wants, 259 and needs in a manner that establishes a relationship, is inclusive of client and care partner 260 feedback, supports the client, and is adaptable to the client and over time. Examining the assessments with strong alignment with R.A.I.S.E. lens highlights attention to the relational and 261 262 supportive aspects of assessment and provides useful directions for enhancing assessment 263 practices and developing new assessment tools in the future.

264 Using R.A.I.S.E. to Enhance Assessment Practices

265 The evaluation process allowed examination of every aspect of the R.A.I.S.E. framework 266 and revealed a paucity of existing assessments that align with all elements. As such, we see significant potential for using the R.A.I.S.E. evaluation framework in principle-based way to 267 268 enhance assessment practices. Knowing how well an assessment aligns with R.A.I.S.E. can 269 inform how an assessment might be best administered and the supports or scaffolds that may 270 need to surround the assessment process. For example, when using assessments that score at the 271 lower end of the R.A.I.S.E. continuum, and for when meeting people with PPA for the first time, 272 the clinician must go beyond standardized assessment protocols to determine (and reveal) a 273 person's strengths, rather than focusing on impairments, to create a comprehensive and mutually 274 beneficial assessment process. As a further example, when administering assessments that do not

275 allow feedback or provision of tailored cues or instructions during administration, clear 276 expectations can be provided for the client and their family. Using the R.A.I.S.E. framework to 277 drive assessment practice, promotes reflection on why standardized tasks are required and why 278 they need to be delivered in constrained ways (e.g. to ensure a reliable picture of performance to 279 support diagnosis and/or to allow sensitive tracking of maintenance or decline over time) and 280 ensures we provide this context to the person and their family. Further, constrained assessment 281 tasks can be carefully balanced with more flexible, responsive, and supportive tasks that allow a 282 person's strengths and effective strategies to be identified and revealed – promoting a sense of 283 competence, as well as an understanding of support needs. As such, using the R.A.I.S.E. ratings 284 in this way allows us to plan the aims, structure, flow, and "feel" of our assessment sessions in a 285 more considered and sensitive way - ensuring we never assess to "destruction" (Gallée et al., 286 2023).

287 Alternatively, rather than abandon the instructions of standardized assessments, the relative 288 rigidity of these assessment tools can frequently be softened by adding strengths-based 289 modifications. For example, this could include offering an alternative response modality and providing cues, or opportunities to complete items outside of the official protocol or formal 290 291 administration, particularly if a person has been anxious about one aspect of their performance. 292 Where formal outcomes of a psychometrically established test are required and the assessment 293 cannot be modified mid-procedure, care can be taken to set clear expectations and prepare the 294 client for the assessment process. Further, appropriate debriefing and opportunities to repeat 295 items can be created afterwards. For example, after providing the test instructions, allowing the 296 client to ask questions and adapting prompts to elicit the targeted response, permits the clinician 297 to not only follow test protocols and to conduct standardized assessment, but further enables

collection of a separate, and arguably richer, set of data related to the modifications and scaffolds
that allow a client to flourish in communication. This combined manner of data collection can
result in a dynamic and person-centered process of assessment while using readily available,
commonly used standardized assessment materials.

302 Other ideas for using R.A.I.S.E. to enhance assessment practices, include identifying ways 303 to transform assessment outcomes into accessible and useable formats to advocate for funding or 304 extended hospital stays, or to promote how well family and friends understand PPA. Such 305 additional layers of support ensure assessments are empowering and useful for all stakeholders. 306 As advocated for by Hersh and Boud (2024), it would be promising to see these supportive and 307 R.A.I.S.E. aligned elements more formally embedded within assessment protocols in the future. 308 Further, the Evolve principle, ensures we select assessment tools in the early stages of the 309 continuum of care that can be used over time to track maintenance and evolution. Conversely, 310 having to continuously change the assessment tool restricts interpretation of the rate and nature 311 of decline. Discourse assessments are a good example of a tool that offers longevity and 312 sensitivity over time. Clinician ratings, such as those collected by the PASS, provide similar 313 flexibility in that the suite of measures or tools may change in response to progression and 314 capability, but the interpretation and 'classification' of performance is documented in a 315 standardized and trackable manner. Consistency in tool use allows the clinician to document 316 performance in a more coherent and meaningful way over time, serving to help maintain the 317 **R**elationship while also **E**volving as necessary.

318 Development of New Assessment Tools and Approaches

The outcomes of this work provide direction for the development of new assessment toolsin the PPA field that align with R.A.I.S.E. and support more person-centered and therapeutic

321 assessment practices (Hersh et al., 2013; Hersh & Boud, 2024). The need to develop assessment 322 approaches that prioritize the relational, supportive, and therapeutic aspects of assessment, while 323 also maintaining attention to robust psychometric properties, particularly when individualized 324 person-centered practices are emphasized, is critical. Given the progressive nature of PPA, we 325 need to explicitly consider and integrate the principles of Relationship and Evolve into 326 assessment tools and the assessment process. Based on the results of this evaluation, the 327 development of tools that draw on naturalistic language elicitation, clinician or self-report scales, 328 and that result in accessible language that is easily transferable between clinicians, evaluation 329 timepoints, clients, and care partners should be prioritized.

330 To reliably share information and allow for this relationship to flourish, there is a strong 331 need for the clinician to use common terminology across the disease trajectory that is accessible 332 yet flexible to changing symptoms. While measures, such as the PASS, closely address the need 333 for flexibility and use of common or consistent terminology/scoring (e.g., scores of 0-3), there 334 remains room for measurement tools with a strengths-based, rather than impairment-based, scale 335 with built-in supports to create objective ratings that boost inter-rater and intra-rater reliability. 336 The development of a scale, for example, that asks objective questions that can be reliably 337 tracked over time would be a positive step forward in meeting this need. Finally, our findings 338 motivate the need for tools that facilitate immediate feedback and accessible language for the 339 clinician to share with the client and care partners to contextualize the outcomes of the 340 assessment.

341 Conclusion

342 Evaluation tools are core features of assessment. Broadly, there are two forms of measures343 readily available to us: standardized measures with the option of comparing client performance

to normative scores, and personalized tasks to evaluate functional performance. Through this
analysis using the R.A.I.S.E. Assessment Framework, we have aimed to draw clinicians'
attention to these relational and qualitative aspects of assessment that are essential for a client's
wellbeing and therapeutic engagement. The clinician's role is then to create and incorporate the
context of the clinician-client relationship, be purposeful in choice of tools while maintaining the
implications of their use, and consider how these are introduced, explained, and used to prompt
further intervention.

351 *Limitations*

352 This study did not include all assessment tools that are used in the evaluation of people 353 living with PPA, such as the American Speech-Language-Hearing Association Functional 354 Assessment of Communication Skills for Adults (ASHA FACS), Cookie Theft, Apraxia Battery 355 for Adults, nor were all subtests of comprehensive evaluations analyzed. Despite this, we believe 356 to have presented analysis outcomes on a representative array of assessment tools that illustrate 357 the range of approaches clinicians can take in evaluation. Furthermore, in our analysis, 358 psychometric properties were not evaluated. Inclusion of a review of the psychometric properties 359 of assessment tools used in working with this population could contribute to a more 360 comprehensive audit of assessments.

- 361 Acknowledgements
- 362

2. This research was supported by the National Institute on Aging (U24AG074855 to J.G.,

363 Role: Postdoctoral Fellow).

364 Data Availability

365 The datasets generated during and/or analyzed during the current study are available from366 the corresponding author on reasonable request.

367 **References**

- 368 Adlam, A. L. R., Patterson, K., Bozeat, S., & Hodges, J. R. (2010). The Cambridge Semantic
- 369 Memory Test Battery: Detection of semantic deficits in semantic dementia and
- 370 Alzheimer's disease. *Neurocase*, *16*(3), 193-207.
- **371** https://doi.org/10.1080/13554790903405693
- Babbitt, E. M., Heinemann, A. W., Semik, P., & Cherney, L. R. (2011). Psychometric properties
 of the communication confidence rating scale for aphasia (CCRSA): Phase 2.
- 374 *Aphasiology*, 25(6-7), 727-735. <u>https://doi.org/10.1080/02687038.2010.537347</u>
- 375 Beeson & Rising, 2010 Beeson, P. M., & Rising, K. (2010). Arizona Battery for Reading and
- 376 Spelling (ABRS). https://aphasia.sites.arizona.edu/content/8
- 377 Billette, O. V., Sajjadi, S. A., Patterson, K., & Nestor, P. J. (2015). SECT and MAST: new tests
- to assess grammatical abilities in primary progressive aphasia. *Aphasiology*, 29(10),
- 379 1135-1151. <u>https://doi.org/10.1080/02687038.2015.1037822</u>
- 380 Cherney, L. R., Babbitt, E. M., Semik, P., & Heinemann, A. W. (2011). Psychometric properties
- of the communication Confidence Rating Scale for Aphasia (CCRSA): phase 1. *Topics in stroke rehabilitation*, 18(4), 352-360. https://doi.org/10.1310/tsr1804-352
- 383 Cho-Reyes, S., & Thompson, C. K. (2012). Verb and sentence production and comprehension in
- 384 aphasia: Northwestern Assessment of Verbs and Sentences (NAVS). Aphasiology,
- 385 26(10), 1250-1277. <u>https://doi.org/10.1080/02687038.2012.693584</u>
- 386 Gallée, J., Cartwright, J., Volkmer, A., Whitworth, A., & Hersh, D. (2023). "Please Don't Assess
- 387 Him to Destruction": The R.A.I.S.E. Assessment Framework for Primary Progressive
- 388 Aphasia. American Journal of Speech-Language Pathology, 32(2), 391–410.
- 389 https://doi.org/10.1044/2022_AJSLP-22-00122

- 390 Gallée, J., & Volkmer, A. (2023). Role of the Speech-Language Therapist/Pathologist in Primary
- 391 Progressive Aphasia. *Neurology. Clinical Practice*, *13*(4), e200178.

392 https://doi.org/10.1212/CPJ.000000000200178

393 Garrett, K. L., & Beukelman, D. R. (2006). Aphasia needs assessment. Augmentative

394 Communication Strategies for Adults with Acute or Chronic Medical Conditions.

- Goodglass, H., Kaplan, E., & Weintraub, S. (2001). BDAE: The Boston diagnostic aphasia
 examination. Philadelphia, PA: Lippincott Williams & Wilkins.
- 397 Helm-Estabrooks, N. (2017). Cognitive linguistic quick test--plus. Psychological Corporation.
- Henry, M. L., & Grasso, S. M. (2018, July). Assessment of individuals with primary progressive
 aphasia. In Seminars in speech and language (Vol. 39, No. 03, pp. 231-241). Thieme
- 400 Medical Publishers.
- 401 Hersh, D., Worrall, L., O'Halloran, R., Brown, K., Grohn, B. & Rodriguez, A. (2013). Assess for
- 402 Success: Evidence for therapeutic assessment. In: N. Simmons-Mackie, J. King & D.
- 403 Beukelman (Eds.) Supporting Communication for Adults with Acute and Chronic
- 404 Aphasia. Brookes Publishing. (pp. 145–164).
- 405 Hersh, D., & Boud, D. (2024). Reassessing assessment: what can post stroke aphasia assessment
- learn from research on assessment in education? *Aphasiology*, *38*(1), 123-143..
- 407 <u>https://doi.org/10.1080/02687038.2022.2163462</u>
- 408 Hilari, K., & Northcott, S. (2017). "Struggling to stay connected": comparing the social
- 409 relationships of healthy older people and people with stroke and aphasia. *Aphasiology*,
- 410 *31*(6), 674-687. <u>https://doi.org/10.1080/02687038.2016.1218436</u>
- 411 Holland, A. L., Frattali, C., & Fromm, D. (2018). CADL-3: Communication activities of daily
- 412 living. Austin, Texas: Pro-Ed.

- 413 Howard, D., & Patterson, K. E. (1992). The pyramids and palm trees test.
- 414 Kagan, A., Winckel, J., Black, S., Felson Duchan, J., Simmons-Mackie, N., & Square, P. (2004).
- 415 A set of observational measures for rating support and participation in conversation
- 416 between adults with aphasia and their conversation partners. *Topics in stroke*
- 417 *rehabilitation*, 11(1), 67-83. <u>https://doi.org/10.1310/CL3V-A94A-DE5C-CVBE</u>
- 418 Kagan, A., Simmons-Mackie, N., Shumway, E., Victor, J. C., & Chan, L. (2021). Development
- 419 and evaluation of the Basic Outcome Measure Protocol for Aphasia (BOMPA).
- 420 *International Journal of Speech-Language Pathology*, 23(3), 258-264.
- 421 https://doi.org/10.1080/17549507.2020.1784278
- 422 Kaplan, E., Goodglass, H., & Weintraub, S. (2001). Boston naming test.
- Kay, J., Lesser, R., & Coltheart, M. (1996). Psycholinguistic assessments of language processing
 in aphasia (PALPA): An introduction. *Aphasiology*, *10*(2), 159-180.
- 425 https://doi.org/10.1080/02687039608248403
- 426 Kertesz, A. (2007). Western Aphasia Battery--Revised.
- 427 Kertesz, A. (2020). The Western Aphasia Battery: A systematic review of research and clinical
- 428 applications. *Aphasiology*, *36*(1), 21-50.
- 429 <u>https://doi.org/10.1080/02687038.2020.1852002</u>
- 430 Knopman, D. S., Weintraub, S., & Pankratz, V. S. (2011). Language and behavior domains
- 431 enhance the value of the clinical dementia rating scale. *Alzheimer's & Dementia*, 7(3),
- 432 293-299. <u>https://doi.org/10.1016/j.jalz.2010.12.006</u>
- 433 Leyton, C. E., Villemagne, V. L., Savage, S., Pike, K. E., Ballard, K. J., Piguet, O., ... & Hodges,
- 434 J. R. (2011). Subtypes of progressive aphasia: application of the international consensus

- 435 criteria and validation using β -amyloid imaging. *Brain*, 134(10), 3030-3043.
- 436 https://doi.org/10.1093/brain/awr216
- 437 Lomas, J., Pickard, L., Bester, S., Elbard, H., Finlayson, A., & Zoghaib, C. (1989). The
- 438 communicative effectiveness index: Development and psychometric evaluation of a
- 439 functional communication measure for adult aphasia. *Journal of Speech and Hearing*
- 440 *Disorders*, *54*(1), 113-124.
- 441 Monsch, A. U., Bondi, M. W., Butters, N., Salmon, D. P., Katzman, R., & Thal, L. J. (1992).
- 442 Comparisons of verbal fluency tasks in the detection of dementia of the Alzheimer type.
- 443 Archives of neurology, 49(12), 1253-1258.
- 444 <u>https://doi.org/10.1001/archneur.1992.00530360051017</u>
- 445 Sapolsky, D., Domoto-Reilly, K., & Dickerson, B. C. (2014). Use of the Progressive Aphasia
- 446 Severity Scale (PASS) in monitoring speech and language status in PPA. *Aphasiology*,

447 28(8-9), 993-1003. <u>https://doi.org/10.1080/02687038.2014.931563</u>

- 448 Simmons-Mackie, N., Kagan, A., & Shumway, E. (2018). Aphasia severity rating. Toronto, ON:
- 449 Aphasia Institute. Retrieved February 20, 2023, from
- 450 https://www.aphasia.ca/wpcontent/uploads/2019/05/VF-ASR.pdf
- 451 Simmons-Mackie, N., Savage, M. C., & Worrall, L. (2014). Conversation therapy for aphasia: A
- 452 qualitative review of the literature. *International Journal of Language & Communication*
- 453 *Disorders*, 49(5), 511-526. <u>https://doi.org/10.1111/1460-6984.12097</u>
- 454 Stark, B. C. (2019). A comparison of three discourse elicitation methods in aphasia and age-
- 455 matched adults: Implications for language assessment and outcome. American Journal of
- 456 Speech-Language Pathology, 28(3), 1067-1083. <u>https://doi/10.1044/2019AJSLP-18-0265</u>

| 457 | Swinburn, K., Best, W., Beeke, S., Cruice, M., Smith, L., Pearce Willis, E., & McVicker, S. J. |
|-----|--|
| 458 | (2019). A concise patient reported outcome measure for people with aphasia: The aphasia |
| 459 | impact questionnaire 21. Aphasiology, 33(9), 1035-1060. |
| 460 | https://doi.org/10.1080/02687038.2018.1517406 |
| 461 | Swinburn, K., Porter, G., & Howard, D. (2022). Comprehensive Aphasia Test (2nd ed.). |
| 462 | Routledge. |
| 463 | |
| 464 | Tombaugh, T. N., Kozak, J., & Rees, L. (1999). Normative data stratified by age and education |
| 465 | for two measures of verbal fluency: FAS and animal naming. Archives of clinical |
| 466 | neuropsychology, 14(2), 167-177. https://doi.org/10.1016/S0887-6177(97)00095-4 |
| 467 | Vickers, C. P. (2010). Social networks after the onset of aphasia: The impact of aphasia group |
| 468 | attendance. Aphasiology, 24(6-8), 902-913. https://doi.org/10.1080/02687030903438532 |
| 469 | Volkmer, A., Spector, A., Meitanis, V., Warren, J. D., & Beeke, S. (2020). Effects of functional |
| 470 | communication interventions for people with primary progressive aphasia and their |
| 471 | caregivers: A systematic review. Aging & mental health, 24(9), 1381-1393. |
| 472 | https://doi.org/10.1080/13607863.2019.1617246 |
| 473 | Volkmer et al. (in preparation). Primary Progressive Aphasia: a Core Outcome Set for improving |
| 474 | intervention research. |
| 475 | Weintraub, S., Mesulam, M. M., Wieneke, C., Rademaker, A., Rogalski, E. J., & Thompson, C. |
| 476 | K. (2009). The northwestern anagram test: measuring sentence production in primary |
| 477 | progressive aphasia. American Journal of Alzheimer's Disease & Other Dementias®, |
| 478 | 24(5), 408-416. |
| | |
| | |

| 479 | Whitworth, A., Claessen, M., Leitão, S., & Webster, J. (2015). Beyond narrative: Is there an |
|-----|--|
| 480 | implicit structure to the way in which adults organise their discourse?. Clinical |
| 481 | Linguistics & Phonetics, 29(6), 455-481. |
| 482 | https://doi.org/10.3109/02699206.2015.1020450 |
| 483 | |
| 484 | |
| 485 | |
| 486 | |
| 487 | |
| 488 | Figure Captions |
| 489 | Figure 1: Examples of assessments along the spectrum of alignment with the R.A.I.S.E. |
| 490 | principles. Strong alignment is indicated by a score of 9 or above (represented by green |
| 491 | to aqua), whereas the absence of alignment is equivalent to a score of 0 (represented by |
| 492 | red). |