

Assessing prospective memory beyond experimental tasks

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We read with great interest the Review by Henry on prospective memory (PM) impairment in neurological disorders (Henry, J. D. Prospective memory impairment in neurological disorders: implications and management. *Nat. Rev. Neurol.* <https://doi.org/10.1038/s41582-021-00472-1> (2021))¹. The author outlines the frequent occurrence of PM impairments in various neurological disorders, with a focus on PM assessment. Specifically, the author proposes that “self-report measures often correlate weakly with objective assessments” and “single-item PM tests have lower reliability and sensitivity than clinical batteries.”

Recent literature reviews have highlighted the flaws of clinical batteries and emphasized the relevance of questionnaires and single-item PM tests. In a systematic and meta-analytic review of PM assessment tools², Blondelle and colleagues highlighted the lack of standardized neuropsychological evaluation in clinical practice. The authors showed that many PM tools lacked normative data, cut-off scores for diagnostic purposes, qualitative scoring, parallel versions and/or ecological validity. Although translated versions of some tools exist, there is a distinct lack of cultural adaptation in non-WEIRD (Western, educated, industrialized, rich and democratic) populations³, and progress in this area will rely on following specific guidelines for test development⁴. Performance-based measures (so-called objective assessments) are valuable for clinical practice, but we should not forget the work needed to make these tools available and relevant to each patient.

With the current focus on performance-based measures, it would be regrettable if single-item PM tests were disregarded. Although we acknowledge that the Key Task is of limited clinical interest, the Envelope Task is interesting to spot patients with dementia⁵ and is sensitive enough to detect difficulties associated with amnesic mild cognitive impairment⁶. In these scenarios at least, continued incorporation of this measure into routine clinical practice could be warranted.

We agree with Henry’s point of view regarding the weak correlation between self-report and performance-based measures, and that the former measures “should supplement rather than replace a formal behavioural assessment.”

However, a recent scoping review⁷ argues that self-report and informant-report PM measures evaluate different constructs from those targeted by performance-based tests, and can also sometimes aid the distinction between individuals with and without PM impairment⁷. Sugden et al. also pointed out the importance of self-report measures to assess the impact of interventions. As such, self-report and informant-report measures seem to represent metacognitive measures of the concerns of individuals about their PM ability rather than measures of PM performance per se.

Finally, in addition to the neurological disorders discussed in the Henry Review¹, researchers and clinicians should be aware that PM impairments are also found in patients with rare conditions such as spina bifida meningomyelocele⁸ and transient global amnesia⁹.

There is a reply to this letter by Henry, J. D. Reply to: Assessing prospective memory beyond experimental tasks. *Nat. Rev. Neurol.* <https://doi.org/10.1038/s41582-021-00501-z> (2021).

Reply to: Assessing prospective memory beyond experimental tasks

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Two statements from my recent Review on prospective memory (PM) impairment (Henry, J. D. Prospective memory impairment in neurological disorders: implications and management. *Nat. Rev. Neurol.* <https://doi.org/10.1038/s41582-021-00472-1> (2021))¹ are highlighted as warranting discussion by Hainselin et al. (Hainselin, M., Gounden, Y. & Blondelle, G. Assessing prospective memory beyond experimental tasks. *Nat. Rev. Neurol.* <https://doi.org/10.1038/s41582-021-00499-4> (2021))², namely, “self-report measures often correlate weakly with objective assessments” and “single-item PM tests have lower reliability and sensitivity than clinical batteries.” Hainselin et al. argue that “recent literature reviews have highlighted the flaws of clinical batteries and emphasized the relevance of questionnaires and single-item PM tests.”

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Competing interests

The authors declare no competing interests.