

**Reply: Functional cognitive disorder: dementia's blind spot**

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We welcome the comments from Kapur *et al* and the opportunity to clarify the meaning of internal inconsistency. This is not equivalent to identifying fluctuations over time, since that could occur for many reasons. Rather, the defining feature of internal inconsistency is contrasting function and dysfunction, ideally demonstrable at the same time, analogous to Hoover's sign in functional motor weakness. Function should be tested using different approaches to see if discrepant results are obtained. This would indicate a lack of factors other than attention and focus that can explain it. When one encounters either temporal variability, or subjective cognitive concern but no objective deficit, this is not in itself specific enough to represent internal inconsistency. Instead, it should be a flag to explore and contrast the specific tasks that the person is, and is not, able to perform. This must be considered in the context of the patient's whole presentation, and relevant differentials considered.

Kapur *et al* emphasise the distinction between "cognitive symptoms that have a psychological basis from those that have an organic basis". We do not advocate a dualistic approach, and we are proposing a process that is subtly different from "non-organic". Attention appears to be a key part of functional conditions, but attention can be a downstream effect of many diverse processes (including pain, anxiety, and neurodegeneration).

We decided not to include mention of "external inconsistency" since this too easily degrades into incongruity with a specified disease process, which would represent diagnosis by exclusion.

We included Text Box 3 to point out some possible examples of where the suggestion of internal inconsistency can in fact be a different process at work. Korsakoff's syndrome (which can include intact implicit but defective conscious memory) is one example. We would expect a person with Korsakoff's, or any conditions characterised by spared implicit but impaired explicit memory, to be consistently poor on conscious and explicit memory.

Kapur *et al* also point out an anomalous sentence in Text Box 1, and indeed this was marked to be placed as the bottom paragraph of Text Box 1 (originally as a footnote). We apologise that this error persisted through to publication.

We would agree that poor effort and feigning can also cause internal inconsistency. Feigning is rarely seen in routine memory clinic practice, and we regard it as generally unhelpful for the clinician to make judgements about agency, as these are better addressed by legal or forensic services. Feigning could be a differential for all conditions diagnosed on the basis of self-report (eg migraine, pain conditions), but this differential is for some reason highlighted more often in functional conditions. Estimates of feigning in routine care are approximately 1.3%<sup>1</sup>, whereas functional conditions account for 12-56% of patients coming

through memory services (as discussed in our article). It is likely that failure of “performance validity” tests reflects many factors wider than simply poor effort, such as fatigue, cognitive impairment, and low capacity for focused attention, or possibly even via an excessive focus of attention <sup>2</sup>.

Finally, we agree that healthcare professionals of all types have considered the importance of “non-organic” and psychological components to cognitive performance for many years, for example the description of Cogniform Disorder <sup>3</sup>. However, we have felt divided by differing terminology (which on further discussion often turned out to be the same thing) and by different contexts in which we see sometimes different subtypes of patients. We often encounter pockets of misunderstanding amongst those less often engaging with such patients. As such, we felt it was helpful to develop cross-speciality shared understanding and propose some initial diagnostic criteria. Further research will be needed to operationalise the detection of internal inconsistency, to test the reliability of diagnostic criteria developed on this basis, and to allow us to develop management approaches.

**Data availability**

Data sharing is not applicable to this article as no new data were created or analysed in this study.

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## Competing interests

A.J.C. runs a not for profit website [www.headinjurysymptoms.org](http://www.headinjurysymptoms.org), is a paid associate editor of JNNP, is unpaid treasurer of the functional neurological disorders society, and gives independent testimony in court on a range of topics including functional cognitive disorders. J.D.I. received an honorarium for an advisory board for Biogen on treatments for Alzheimer's disease, has received conference expenses from Roche and has been Principal Investigator on clinical trials in Alzheimer's disease funded by Roche, Merck and Lupin Pharmaceuticals. L.M. provides independent medical testimony in court cases regarding patients with functional disorders. M.R. has received speaker's fees from UCB Pharma, Eisai and LivaNova, and benefitted from an educational grant from UCB Pharma; he receives payments from Elsevier as Editor-in-Chief of Seizure, and authorship fees for book publications from Oxford University Press. J.S. reports independent expert testimony work for personal injury and medical negligence claims, royalties from UpToDate for articles on functional neurological disorder, is unpaid secretary of the Functional Neurological Disorder Society and runs a free non-profit self-help website for FND, [www.neurosymbols.org](http://www.neurosymbols.org). A.V. has received consulting fees and travel support from Biogen and Merck.

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