

## LETTER TO THE EDITOR

### Functional cognitive disorder: dementia's blind spot

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We welcome the article by Ball and colleagues on functional cognitive disorder (FCD), since it draws attention to a common and important clinical presentation.<sup>1</sup> We agree with the authors that distinguishing cognitive symptoms that have a psychological basis from those that have an organic basis is particularly important in the area of dementia diagnosis. We nevertheless have concerns about some of the key messages in the article.

First, the authors state, “Functional cognitive disorder refers to complaints of persistent, problematic cognitive difficulties, when accompanied by positive features termed ‘internal inconsistency’, and which are not better explained by another disorder, e.g. a neurodegenerative disease process”.<sup>1</sup> Ball *et al.* define ‘internal inconsistency’ as ‘the ability to perform a task well at certain times, but with significantly impaired ability at other times, particularly when the task is the focus of attention’. At face value, therefore, the authors seem to give ‘time specificity’ a key role in their criteria, such that not being able to perform a particular memory task in the morning but being able to perform it in the afternoon, or vice versa, would be key. While the authors regard ‘internal inconsistency’ as a key and critical feature of functional cognitive disorder, they do not make it clear what they would regard as ‘external inconsistency’, and if the latter is relevant to the diagnosis of FCD. If marked memory loss coexists with a normal brain scan, would this be classed as ‘external inconsistency’? The authors present specific features of what they regard as ‘positive evidence of internal inconsistency’, but these may better be classed as examples of ‘external inconsistency’. Thus, they contrast subjectively-reported

cognitive difficulties/low cognitive test scores with three distinct features. The contrasting features are: (i) intact/superior conversational abilities during interview; (ii) performing well in ‘a cognitively demanding occupation’ [they then add ‘difficulties only occurring in particular situations’, which seems to be saying something rather different, in that one is dealing with ‘situation-specific’ (rather than ‘time-specific’) variability]; and (iii) differences between subjective complaints and the observations of an informant. These features further extend beyond the original concept of ‘good at some times, bad at other times’. One might regard these clinical features as examples of ‘external inconsistency’.

Second, the authors provide a helpful box (Box 1 in Ball *et al.*<sup>1</sup>) where they attempt to clarify what they mean by ‘internal inconsistency’. However, their Box in fact raises a few further questions of its own. The Box text itself seems to be internally inconsistent: in particular, the authors write, ‘We also considered whether a patient’s tendency to give “approximate answers” should be used as an example of internal inconsistency’, which is repeated later in the Box, and presumably its occurrence in the first paragraph is an error, as it is quite out of place there.

Third, Ball *et al.*<sup>1</sup> state in Box 1 that internal inconsistency ‘may reflect differences in automatic versus explicit processing’. However, in Box 3, they acknowledge that intact implicit memory may occur alongside defective conscious memory in conditions such as Korsakoff’s syndrome. On the surface, this appears rather confusing, and this confusion seems to arise from confounding variability across time with variability across task demands. In Box 3, the authors

helpfully point to apparent inconsistencies that can occur within a particular cognitive domain, but which may be organic in nature. They cite two examples from the cognitive domain of memory, and it is important to note other dissociations in the area of memory, such as material-specific memory loss and accelerated long-term forgetting, and that more generally paradoxical inconsistencies may occur that reflect the intricacies of human memory.<sup>2</sup> It is also worth noting that, within a particular cognitive domain, task demands may produce dramatic inconsistencies, such as cases of acquired dysgraphia where a neurological patient may not be able to write a capital ‘H’, but may be able on request to draw a set of rugby goal posts.<sup>3</sup>

Fourth, the authors add a second level of criteria, and refer to ‘patterns within neuropsychological testing that indicate cognitive processes performing better when accessed less explicitly’, and they give as an example better delayed recall than immediate recall (presumably what they mean by ‘initial registration of information’). While we agree that this pattern of performance is often seen in non-organic conditions, we would hesitate to apply the ‘explicit-implicit’ framework to describe this pattern of performance, since spared implicit memory with impaired explicit memory is a more generic phenomenon which is seen in a wide range of neurological conditions, including dementia and pure amnesic syndromes.

Fifth, in general, the authors overstate ‘internal consistency’ as a specific and defining feature of FCD. The authors should make it clear that other non-organic conditions, such as low cognitive effort or feigning, have features of inconsistency (that may manifest as both internal and external) and it may prove informative to ascertain whether patterns of inconsistency vary between differing non-organic conditions.<sup>4,5</sup> This is important in the light of the current debate concerning performance validity testing.<sup>4–7</sup> While we agree that FCD may represent a ‘dementia blind spot’, as neuropsychologists we see many similar blind spots not only in dementia, but also in other conditions such as a mild head injury<sup>8</sup> and transient amnesia.<sup>9</sup>

Finally, the authors conclude that ‘establishing FCD as an essential axis in cognitive assessment will help us to better understand, and ultimately to modify, the causes of cognitive impairment, and to determine who will and who will not develop dementia’. For decades neuropsychologists have considered ‘functional’ factors, in the form of psychogenic, non-organic factors, to be ‘an essential axis in cognitive

assessment’,<sup>10</sup> and greater respect for this fact would have been welcome.

## 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

The authors report no competing interests.

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