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Editorial

Looking back to go forward: Promoting single case studies

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In all cognitive domains, neuropsychological research developed and/or advanced by means of the study of exemplary individual patients. The list is very long; it includes, among others, Phineas Gage (Harlow, 1848) for executive functions, Leborgne (Broca, 1861) for language, Oscar C. (Dejerine, 1892) for reading, the Regierungsrat (Liepmann, 1900) for gestures, H.M (Scoville & Milner, 1957) for long-term memory, P.V (Basso, Spinnler, Vallar, & Zanobio, 1982) for verbal short-term memory, and H.J.A (Humphreys & Riddoch, 1987) for visual recognition. Some patients were aware of and proud to be contributing to the development of science and participated in many experiments, thus becoming relevant figures in the field of neuropsychology, such as H.J.A (Humphreys & Riddoch, 2008) and H.M. (Corkin, 2013).

The single-case study approach is the appropriate methodology for drawing inferences about the functional architecture of cognitive processes in research involving brain-damaged patients (Caramazza & McCloskey, 1988; Coltheart, 2004). It is also clinically relevant. The accurate description of selective or rare deficits can reveal novel symptoms, hence inducing clinicians to pay more attention to unknown topics. Multiple reports of single patients with the same clinical label or the same main defect allow the compilation of comprehensive reviews aimed at identifying common and distinctive features and proposition or revision of theoretical models. Further, single case reports permit serendipity, i.e. the observation of unexpected or unpredicted phenomena, like the double dissociation between cancellation tasks and line bisection (Halligan & Marshall, 1992) and between span and recency (Della Sala, Logie, Trivelli, Cubelli, & Marchetti, 1998).

Several major international journals changed their original policies and now discourage articles reporting on individual cases or accept them only in short formats. To publish single case reports with the detailed description of signs and behavior (typical of the papers at the end of the nineteenth century) or with a long series of experiments (typical of the papers in the last decades of the twentieth century) is getting harder. Given its heuristic value, the single-case approach, however, should not be abandoned and should remain at the core of neuropsychology research (MacPherson & Della Sala, 2018). Nowadays, valid statistic tools are available (Crawford, Garthwaite, & Howell, 2009; Huber, Klein, Moeller, & Willmes, 2015) and more reliable data can be reported.

Cortex has always published papers on single cases as well as papers on group studies. However, the number of submissions reporting on single cases is plummeting. In 2016, out of 137 Research Reports on human participants published in Cortex, only 10 (7%) focused on single cases. To promote single case studies and offer a home to single case reports we decided to formalize a section in Cortex labeled **Single Case Reports**, which will be entirely devoted to papers on single or multiple single case studies. This section will have no difference in status or emphasis compared to the other research sections of the journal.

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We take the opportunity to summarize here the different types of articles that Cortex publishes, varying in length, topics, or submission process:

Reviews. Critical appraisal of the literature on a research issue.
Research Reports. Important and novel experimental studies with groups of brain damaged or brain unimpaired people. No word or references limit.
Notes. Short reports (up to 3000 words of text) presenting new findings.
Letters. Short reports (up to 1000 words) with no abstract.

1. Thematic categories

- *Clinical Neuroanatomy*. Research articles or reviews dedicated to clinical anatomical correlation using different types of functional and morphological imaging (Catani & ffytche, 2010).
- *Historical papers*. Articles or reviews dedicated to historical issues. The section includes commented translations (or reprinting) of neglected and historical papers or quotations from and/or comments on them (Goldenberg, 2001).
- *Behavioural Neurology*. Research articles or reviews with some relevance for diagnosis and/or care of patients affected by cognitive and behavioural disorders (Cappa, 2015).

2. Specific submission processes

- *Registered reports* (Chambers, 2013). These submissions undergo a two-phase review process in which study rationale and methodology are considered prior to the research being undertaken.
- *Exploratory reports* (McIntosh, 2017). Studies with very open hypotheses would also be suited to this format, allowing researchers to declare their exploratory intentions clearly at the outset.

3. Discussion forum

- *Discussion Forums* (e.g., Baron, 2015, 2016; Paap, Johnson, & Sawi, 2015, 2016). Organized discussions around a theme of interest for a community of neuropsychologists.
- *Clinical Postcards* (Della Sala, Cubelli, & McIntosh, 2015; e.g.,; Dharia & Zeman, 2016). Very short insights about patients or conditions, descriptions of symptoms rarely or never reported, interesting observations or incipient theories. The ideas may be tentative rather than fleshed out with experimental data and theoretically clad, but they should be novel.
- *Viewpoints* (e.g., Feuerriegel, 2016). Mini-reviews akin to position papers.
- *Commentaries* (e.g., Naccache, Sébastien Marti, Sitt, Trübutschek, & Berkovitch, 2016; Silverstein, Snodgrass, Shevrin, & Kushwaha, 2016). Critiques and discussions on reports previously published in Cortex.
- *Quotes and titbits* (e.g., Cubelli, 2017; Kapur, 2012; de Vito & Della Sala, 2015). Eligible entries may include also quotes from fiction as well as from non-neuroscience disciplines, whereby neuropsychological issues are mentioned with some hindsight.
- *Definitions* (Cubelli & Della Sala, 2017; e.g., Osiurak and Rossetti, 2017). Definitions can apply to syndromes, symptoms, signs, paradigms, procedures or neuroanatomy relevant to neuropsychology.

To add to this rich gamut of article types, we now offer the formal frame of the new section:

Single Case Reports. Important and novel material using a single case study approach. No word or reference limit.

We look forward to receiving your submissions on detailed single cases, which, we are sure, will add to our theoretical understanding of the cognitive architecture of the mind and will provide the methodological model for the accurate clinical investigation and interpretation of neuropsychological symptoms.

REFERENCES

Baron, J. (2015). Some fallacies of human-subjects protection, and some solutions. *Cortex, 65*, 246–254.
Baron, J. (2016). Forum on the functioning of ethical committees: The nature of the problem. *Cortex, 74*, 303–304.
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*(3), 263–274.
Broca, P. (1861). Remarques sur le siège de la faculté du langage articulé, suivies d'une observation d'aphemie (perte de la parole). *Bulletin de la Société Anatomique de Paris, 36*, 330–357.
Cappa, S. F. (2015). Behavioural neurology, a new section in Cortex. *Cortex, 63*, A1–A2.
Caramazza, A., & McCloskey, M. (1988). The case for single-patient studies. *Cognitive Neuropsychology, 5*(5), 517–527.
Catani, M., & ffytche, D. H. (2010). New section: Cortex clinical neuroanatomy. *Cortex, 46*(1), 1.
Chambers, C. D. (2013). Registered reports: A new publishing initiative at Cortex. *Cortex, 49*(3), 609–610.
Coltheart, M. (2004). Cognitive neuropsychology. In A. Kuper, & J. Kuper (Eds.), *Encyclopaedia of social sciences*. London: Routledge and Kegan Paul.
Corkin, S. (2013). *Permanent present tense. The man with no memory, and what he taught the world*. New York: Basic Books.
Crawford, J. R., Garthwaite, P. H., & Howell, D. C. (2009). On comparing a single case with a control sample: An alternative perspective. *Neuropsychologia, 47*(13), 2690–2695.
Cubelli, R. (2017). Anosodiaphoria in a Simenon's character. *Cortex, 95*, 257–258.
Cubelli, R., & Della Sala, S. (2017). In search of a shared language in neuropsychology. *Cortex, 92*, A1–A2.
Dejerine, J. (1892). Contribution à l'étude anatomo-pathologique et clinique des différentes variétés de cécité verbale. *Mémoires de la Société de Biologie, 4*, 61–90.
Della Sala, S., Cubelli, R., & McIntosh, R. D. (2015). Cilinical postcards. *Cortex, 64*, A1–A3.
Della Sala, S., Logie, R. H., Trivelli, C., Cubelli, R., & Marchetti, C. (1998). Dissociation between recency and span: Neuropsychological and experimental evidence. *Neuropsychology, 12*(4), 533–545.

de Vito, S., & Della Sala, S. (2015). Acting out the past. Procedural/episodic memory dissociation in arts and media. *Cortex, 69*, 279–281.
Dharia, S., & Zeman, A. (2016). Fatigue amnesia. *Cortex, 79*, 153–154.
Feuerriegel, D. (2016). Selecting appropriate designs and comparison conditions in repetition paradigms. *Cortex, 80*, 196–205.
Goldenberg, G. (2001). Why should we read the classics? *Cortex, 37*, 293–294.
Halligan, P. W., & Marshall, J. C. (1992). Left visuo-spatial neglect: A meaningless entity? *Cortex, 28*, 525–535.
Harlow, J. M. (1848). Passage of an iron rod through the head. *Boston Medical & Surgical Journal, 39*, 389–393.
Huber, S., Klein, E., Moeller, K., & Willmes, K. (2015). Comparing a single case to a control group – applying linear mixed effects models to repeated measures data. *Cortex, 71*, 148–159.
Humphreys, G. W., & Riddoch, M. J. (1987). *To see but not to see: A case study of visual agnosia*. London: Erlbaum.
Humphreys, G. W., & Riddoch, M. J. (2008). HJA (1921–2008). *Cortex, 44*, 759–761.
Kapur, N. (2012). Paradoxes of the mind. *Cortex, 48*, 378–381.
Liepmann, H. (1900). Das Krankheitsbild der Apraxie (Motorische asymbolie): Auf Grund eines Falles von einseitiger Apraxie. *Monatschrift für Psychiatrie und Neurologie, 8*, 15–44, 102-132. 182-197.
MacPherson, S. E., & Della Sala, S. (2017). *Amnesia cases*. Abingdon: Taylor & Francis. in press.
McIntosh, R. D. (2017). Exploratory reports: A new article type for Cortex. *Cortex, 96*, A1–A4.
Naccache, L., Sébastien Marti, M., Sitt, J. D., Trübutschek, D., & Berkovitch, L. (2016). Why the P3b is still a plausible correlate of conscious access? A commentary on Silverstein et al., 2015. *Cortex, 85*, 126–128.
Osiurak, F., & Rossetti, Y. (2017). Definition: Limb apraxia. *Cortex, 93*, 228.
Paap, K. R., Johnson, H. A., & Sawi, O. (2015). Bilingual advantages in executive functioning either do not exist or are restricted to very specific and undetermined circumstances. *Cortex, 69*, 265–278.
Paap, K. R., Johnson, H. A., & Sawi, O. (2016). Should the search for bilingual advantages in executive functioning continue? *Cortex, 74*, 305–314.
Scoville, W., & Milner, B. (1957). Loss of recent memory after bilateral hippocampal lesions. *Journal of Neurology, Neurosurgery & Psychiatry, 20*, 11–21.
Silverstein, B. H., Snodgrass, M., Shevrin, H., & Kushwaha, R. (2016). Unconscious P3b and complex unconscious processing: Reply to Naccache et al., 2016. *Cortex, 85*, 129–132.