## CREATIVITY AND THE BRAIN.

## *Neuropsychology of Art: Neurological, Cognitive and Evolutionary Perspectives* Dahlia W. Zaidel.

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## Reviewed by NMJ Edelstyn

In *Neuropsychology of Art* Dahlia W. Zaidel examines issues such as: Where does creativity come from? How do we represent the world, and the ways in which these internal representations breakdown in the context of brain pathology. She explores how works of art by artists with brain damage can help us understand the origins of our creative abilities and experiences of these internal representations, and in so doing provides a number of important insights.

Firstly, from the compilation of single cases of established visual artists in Chapter 2, autistic savants with special artistic skills in Chapter 4, composers in Chapter 5 and trained musicians in Chapter 6, a distinct recurrent type of artistic composition postdamage has not emerged, either across or within different brain pathologies. This absence suggests preservation of artistic capabilities despite onslaught of neuronal damage (following stroke, or dementia, or with autism). Secondly, artists are also as susceptible to visuo-spatial deficits as are other individuals, but because of their preserved artistic skill, their work can appear visually eloquent in incorporating deficits like neglect into their visual art.. Thirdly, regardless of laterality or lesion location, the artists showed an adherence to their premorbid artistic style, although a more variable effect was noted for technique. Fourthly, preservation of artistic skill which include creativity and aesthetic preference remain relatively intact, modified, enhanced, or even generated in individuals who, premorbidly, had not displayed overt artistic tendencies. This point has most recently been illustrated in the report of 51-year old Tommy McHugh (Lythgoe et al., 2005), a former builder, who, following a localized brain haemorrhage, developed an artistic compulsion and now writes poetry, draws, paints and makes sculptures..

Throughout this book, D. Zaidel has carefully distinguished between talent or skill and creativity. Having artistic skill alone does not guarantee creativity. Talent is something she attributes to genetic inheritance if only by pointing out that autistic savants are skilled from a very early age, before most of us, or non-savant autistic

persons, display artistic skills. All of this would suggest that Michelangelo, Goya, Van Gogh, Monet, Picasso, Mozart, Beethoven, and Schubert, were somehow endowed with genetic control of their talent, and, since they did not suffer from brain damage could fully and gloriously displayed the gamut of their creativity.

The diverse material and clarity of writing makes *Neuropsychology of Art* of interest to all scientists and scholars as well as a useful and fascinating source on important current developments in the field of brain and art.

A web site by the publisher provides colour figures, some overlap with what is in the book and some are new, http://www.psypress.co.uk/zaidel and the book's chapter subheadings can be viewed here, http://dahliaz.bol.ucla.edu/newbook.html It should also be mentioned that there is a detailed Subject Index with artists' names as well as a useful Glossary.

## References

Lythgoe, MFX, Pollak, TA, Kalmus, M, de Haan, M & Chong, WK (2005) Obsessive, prolific artistic output following subarachnoid haemorrhage. Neurology 64, 397-398. Reuter, M., Roth, S., Holve, K., and Hennig, J. (2006) Identification of first candidate genes for creativity: A pilot study. Brain Research, 1069, 190-197.