# 1<sup>st</sup> Workshop Consciousness Versus Attention: Call for Papers

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### **Programme Committee**

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## **Subject Areas**

Experiments on attention and consciousness Modelling attention Modelling consciousness Creativity and its modelling Developmental analyses of attention and consciousness Evolutionary analyses of attention and consciousness Modelling unconscious versus conscious processing

## **Call for papers**

All interested are invited to submit by email a brief abstract (up to 4 pages) to Professor J. Taylor, *john.g.taylor@kcl.ac.uk* or taymore2002@aol.co.uk and attend to give a paper if the abstract is accepted. In particular the workshop is keen to have presentations in which neural network models of attention and of creativity are used as a basis for an argument one way or the other for the independence of consciousness and attention.

The submissions will be reviewed rigorously by an international review committee. The submission must conform to the Springer LNCS format, detailed instructions for preparing the manuscript in the required format can be found in http://delab.csd.auth.gr/icann2010/submission.html

<u>Short versions (up to six pages)</u> of all accepted papers will appear in a separate chapter of the ICANN 2010 (springer) conference proceedings.

An effort will be made to prepare a **Special Issue** of the journal **Cognitive Neurodynamics** on this topic based on the papers presented at the workshop

### **Registration:**

Registration policy will be exactly the same as the one of the main 20th ICANN event. Please visit <u>http://delab.csd.auth.gr/icann2010/registration.html</u>

### **Important Dates**

Paper submission: May 1<sup>st</sup> 2010 Review to author by: May 17 2010 Final submission to conference: May 31 2010

### Contents

There is an important controversy presently being fought out in both the experiment and theory of attention as to the requirement of attention being applied to a stimulus for the occurrence of consciousness of that stimulus. The extreme positions are that a) attention and consciousness are independent [1-6] and b) attention is necessary for consciousness of a stimulus to arise [7, 8]. Some discussion supporting position b) is given in the papers [9 – 11] (which is the majority position across brain science). The purpose of this workshop is to attempt to bring together some of the adversaries in this battle so that they can present their

case, especially from the point of view of experimental results claimed by one side or the other to be final proof of their position.

The experiments being claimed by those who regard consciousness and attention as independent will be fully summarised and argued for by their supporters. However the alternate interpretation, that attention forms the gateway to consciousness, may also be used to interpret some aspects of these experiments. One particularly crucial aspect in this controversy is the recognition that important aspects of mental life occur outside consciousness. However how then is consciousness used in such partially unconscious information processing. In creativity, for example, consciousness arises as a crucial component after important unconscious processing has occurred. More generally we expect the interchange between the two states is highly non-trivial and needs to be teased out by experiment. It will be these presently ambiguous experiments that need further discussion.

#### References

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[7] N. Srinivasan (2008) Interdependence of attention and consciousness Prog Brain Res 168, eds R. Banarjee & B. K. Chakrabarti, Ch 6

[8] P. Zhang, S. Engel, C. Rios, B. He & S. He (2009) Binocular rivalry requires visual attention: Evidence from EEG. J. Vis. 9(8): Abstract 291, p291a

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[10] Taylor JG (2007) CODAM: A Model of Attention Leading to the Creation of Consciousness. Scholarpedia 2(11):1598

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