NEW HOT PAPERS - 2009

September 2009

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Michael Corballis & Thomas Suddendorf talk with *ScienceWatch.com* and answers a few questions about this month's New Hot Paper in the field of Neuroscience & Behavior.

Article Title: The evolution of foresight: What is mental time travel, and is it unique to humans?
Authors: Suddendorf, T;Corballis, MC
Journal: BEHAV BRAIN SCI
Volume: 30
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SW: Why do you think your paper is highly cited? Does it describe a new discovery, methodology, or synthesis of knowledge?

We think it gives a new perspective on episodic memory, and explains why storage in episodic memory is so unreliable. The idea is that episodic memory provides information for the construction of future plans, rather than serving as a knowledge store.

Foresight is a topic that has long been neglected in the behavioral sciences. We argue that there is something distinct about human foresight and put forward a theory about the nature of foresight that has implication for a range of disciplines. Our paper is primarily a synthesis of knowledge.

SW: Would you summarize the significance of your paper in layman's terms?

This paper represents memory for events as part of mental time travel, the ability to travel mentally both forwards and backwards in time. This underlies many unique aspects of human consciousness, including an extended understanding of self, and perhaps language, which is exquisitely designed to allow us to share plans and memories.

Coauthor
Thomas Suddendorf

SW: How did you become involved in this research, and were there any problems along the way?

We both have a long standing interest in the evolution of the human mind. Some 15 years ago MC supervised TS' Master's thesis which proposed some of the key ideas discussed here, including the notion that mental time travel may have been a prime mover in human evolution.

We did have difficulties getting this work published at the time and had to settle for a low-key outlet in 1997. Nonetheless, the paper eventually had impact and, ten years on, we decided it was time to revisit these early ideas and propose an updated version. It is great to see that scholars from various disciplines are now taking note.

SW: Where do you see your research leading in the future?

It looks like the future of research on thinking about the future is now, as one of the commentators on our article pointed out. There has been a rapid increase in studies on foresight over the last couple of years in animal behavior, neuroscience, economics, psychology, and cognitive science and we anticipate that interest will continue to increase. Ultimately, we hope that these efforts with lead to a fuller understanding of the nature and evolution of central characteristics of the human mind such as memory, foresight, and language.

SW: Do you foresee any social or political implications for your research?

In terms of memory, the constructive nature we describe may even have legal implications, e.g., in relation to eyewitness testimony. In terms of foresight, we think that this is a key human survival strategy and any insights into its nature may have important implications. We might need to get better at foresight if want to avoid some of the potentially disastrous consequences of our attempts at running this planet.

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PDF

back to top

2009 : September 2009 - New Hot Papers : Michael Corballis & Thomas Suddendorf

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