

Updating memory for fact and fiction

July 23 2014, by David Stacey

Sunlight can make people sneeze. Sounds ludicrous? But it's true - it's called a photic sneeze reflex, and can occur in about one out of four people. Did you believe that fingerprints are unique to each individual? That, by contrast, is a myth - some fingerprints can be so similar that forensic experts assume they are a 'match' when they actually belong to different individuals.

We are exposed to an abundance of information, and sometimes it can be hard to tell fact from fiction. Researchers of the Cognitive Science Laboratory of The University of Western Australia are investigating how people process surprising facts and common myths. The team, led by Associate Professor Ullrich Ecker, is particularly interested in why common myths are so difficult to eradicate in society. For a current study, they are calling for volunteers over the age of 50 to help understand how people update their memory and beliefs regarding surprising facts and common myths.

Correcting common misconceptions can be extremely difficult, as retractions - simply stating that something is not true - are typically not very effective. In part, this could be because retractions repeat the myth in order to correct it. For example, stating that '<u>fingerprints</u> are not 100 per cent unique to each individual' repeats the association between 'fingerprints' and 'uniqueness', making this false link more familiar. This is problematic as people tend to assume that familiar information is true. Retractions can therefore ironically strengthen the misconceptions they are trying to correct. Older adults may be particularly susceptible to this effect, as memory for detail deteriorates with age, while familiarity-



based memory does not.

A new study by Professor Ecker and his PhD student Briony Swire will explore how people process corrections of common myths and affirmations of surprising facts. Participants will be required to read various statements, both facts and myths, and rate how much they believe in each one. They will learn whether the statements were actually true or false before answering questions regarding the statements as well as re-rating their beliefs.

Provided by University of Western Australia

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