

Reading can improve your mental flexibility

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Experiments conducted by the University of Liverpool's Centre for Research into Reading, Literature and Society (CRILS) have found that literary reading could help increase mental flexibility.

Reading literature is encouraged as an activity because it is thought to be

of benefit to mental health and wellbeing, but very little is known about how reading can do this.

The CRILS research team, Professor Philip Davis, Dr Josie Billington, Professor Rhiannon Corcoran and Dr Noreen O'Sullivan, conducted a series of experiments using [functional magnetic resonance](#) imaging (fMRI) to analyse the [brain](#) activity of 24 people reading poetry or literature with poetic effects.

Mental flexibility

Functional [magnetic resonance imaging](#) is a neuroimaging procedure using MRI technology that measures [brain activity](#) by detecting changes associated with blood flow.

Mental flexibility is the ability of a person to shift a course of thought or action according to the changing demands of a situation. It allows an individual to abandon a previous response set or pattern in order to generate an alternative that is better suited to the requirements of the situation at hand.

The experiment explored the capacity of the participants to process and derive meanings in complex poetic and prosaic texts that either did or did not require significant reappraisal during reading.

Improved mental wellbeing

Following this, participants rated each piece on its 'poeticness' and the extent to which it prompted a reappraisal of meaning during reading. The scans showed increased activity and connectivity of specific brain networks associated with switching thoughts.

Professor Philip Davis, said: "The research found that the sustained experience of reading poems might be expected to challenge rigid expectancies and fixed thoughts and to increase [mental flexibility](#) through the process of the reappraisal of meaning and the acceptance of fresh meanings, a process that was experienced as intrinsically rewarding.

"This is especially promising since the activated areas of the brain that provided a sense of reward in the very process of activation is known to be particularly under-vitalised in those suffering from depression."

The full study, entitled "'Shall I compare thee': The neural basis of literary awareness, and its benefits to cognition', can be found here.

More information: Noreen O'Sullivan et al. "Shall I compare thee": The neural basis of literary awareness, and its benefits to cognition, *Cortex* (2015). [DOI: 10.1016/j.cortex.2015.08.014](https://doi.org/10.1016/j.cortex.2015.08.014)

Provided by University of Liverpool

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