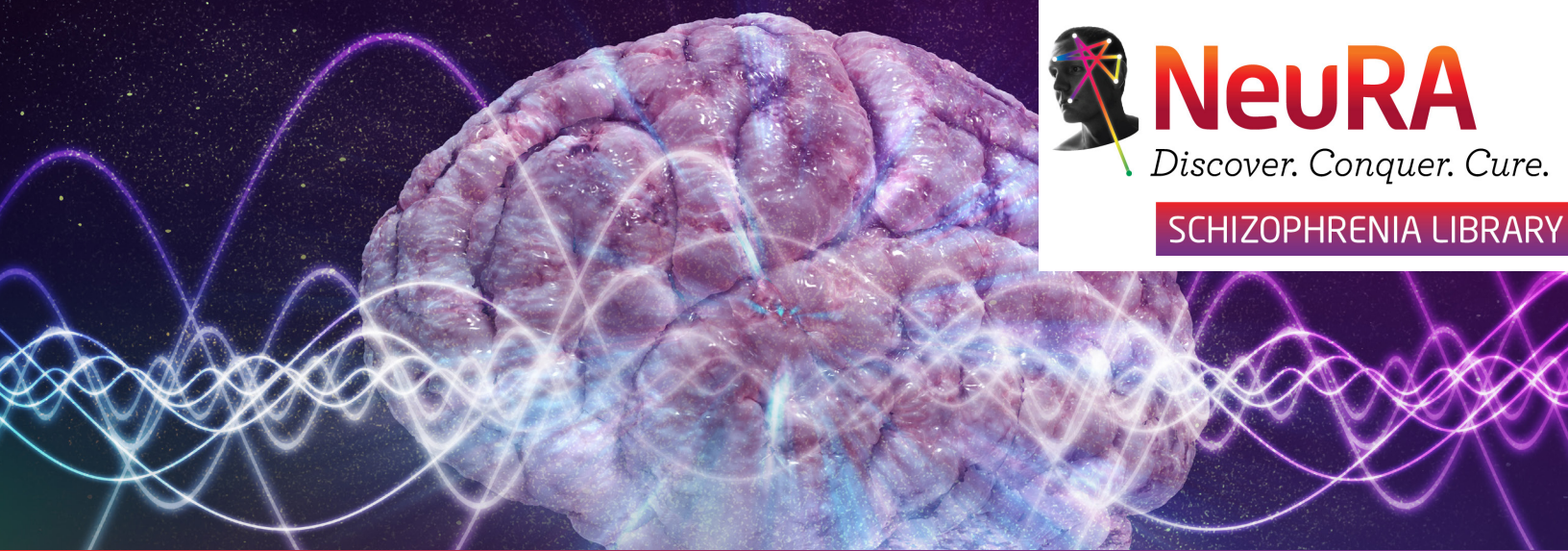




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SCHIZOPHRENIA Factsheet

October 2020

What is P3 and LPP event-related potentials?

The P3 component can be divided into the P3a and P3b, with the P3a signifying attention to a novel stimulus, and the P3b being associated with the motivational salience of a stimulus. P3b generally appears as a positive deflection over the parietal midline sagittal plane (Pz) from 250 to 500 ms following stimulus presentation. The amplitude of the P3b is modulated by motivation. P3 has been used to examine responses to emotional stimuli by capturing attention and requiring additional processing because of the emotional content.

Another event related potential component closely related to attentional allocation to emotional stimuli is the late positive potential (LPP), which appears mostly over central parietal sites from 300 to 2000ms post-stimulus and continuing for up to several seconds. The LPP is also thought to reflect sustained attention to and processing of stimuli that are intrinsically motivating, such as emotional images. LPP is often considered a sustained P3 response.

What is the evidence for P3 and LPP?

Moderate to high quality evidence suggests P3b and LPP amplitude is reduced in people with schizophrenia compared to controls in response to negative stimuli, particularly negative faces. There were no differences with positive or neutral stimuli.

For more information see the technical table



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NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at neura.edu.au/donate/schizophrenia.