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## Seeing grey when feeling blue? Depression can be measured in the eye of the diseased

In language and arts depression is associated with darkness and grey and black colours. Everything looks grey when people feel blue.

There might be an empirical truth behind these idioms according to the findings of a research group at the University Hospital Freiburg in Germany, who combined neuropsychiatric and ophthalmologic investigations. In earlier work they were able to demonstrate that depressed people do have difficulties with detecting black-and-white contrast differences.

The new study focused on the response of the retina in depressed and healthy humans to varying black-and-white contrasts. Measuring the pattern electroretinogram, which is a kind of electrocardiogram (ECG) of the eye, they found dramatic reductions in response amplitudes of the eyes of depressed patients. The signal was so strong that it was able to distinguish most depressed patients on a single case basis from healthy control subjects when looking at the electrophysiological measurement (e-publication ahead of print in *Biological Psychiatry*, [http://www.journals.elsevierhealth.com/periodicals/bps/article/S0006-3223\(10\)00129-0/abstract](http://www.journals.elsevierhealth.com/periodicals/bps/article/S0006-3223(10)00129-0/abstract)).

Should these strong findings be replicated in further studies, this method could turn out to be a valuable tool to objectively measure the subjective state of depression. This could have far reaching implications for research as well as clinical diagnosis and therapy of depression.

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