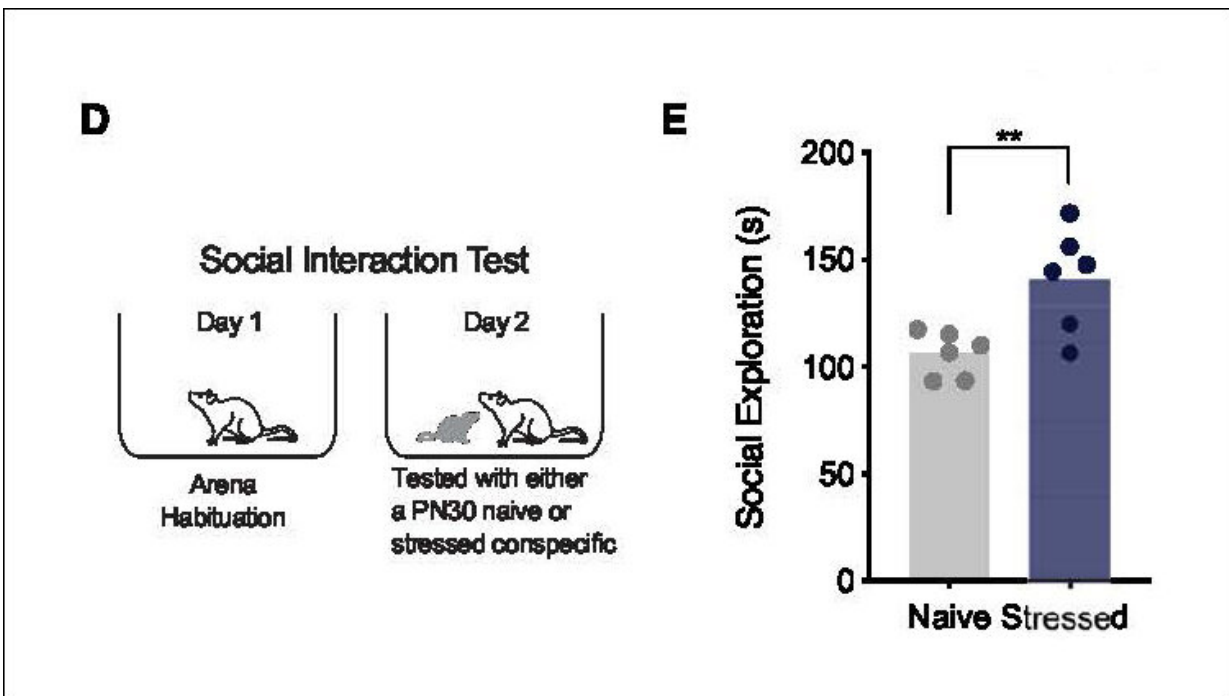


Why rats prefer company of the young and stressed

October 10 2019



Insular cortex projections to nucleus accumbens core mediate social approach to stressed juvenile rats. Credit: Rogers-Carter et al., *JNeurosci* (2019)

Researchers have identified a neural pathway implicated in social interaction between adult and juvenile animals, according to new research in rats published in *JNeurosci*.

Adult rats have been shown to prefer the company of stressed-out

juveniles. This preference could be mediated by connections between the insular cortex, an area that integrates emotional and [sensory information](#), and the [nucleus accumbens](#), an area involved in determining reward.

Rogers-Carter *et al.* manipulated this pathway in adult rats to see how it affected their interactions with stressed and relaxed rats of various ages.

When the [insular cortex](#) was inhibited, the rats lost their preference for stressed juvenile rats, but their avoidance of the stressed adults persisted.

The researchers believe that young, stressed animals trigger parental instincts, whereas a stressed adult might be a sign of danger.

This parallels the increased empathy humans have towards children over their peers.

More information: Morgan M. Rogers-Carter et al, Insular cortex projections to nucleus accumbens core mediate social approach to stressed juvenile rats, *The Journal of Neuroscience* (2019). [DOI: 10.1523/JNEUROSCI.0316-19.2019](#)

Provided by Society for Neuroscience

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