

# Dopamine involved in recognizing emotions

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Ball-and-stick model of the dopamine molecule, a neurotransmitter that affects the brain's reward and pleasure centers. Credit: Jynto/Wikipedia

The neurotransmitter dopamine, famous for its role in reward, is also involved in recognizing emotions, according to new research published in *JNeurosci*.

People with disrupted [dopamine levels](#), like in Parkinson's disease and schizophrenia, often struggle with aspects of social cognition. Yet the link between [dopamine](#) and specific social behaviors remained elusive, in part due to mixed results from studies that did not account for [individual differences](#) in dopamine levels.

In a study by Schuster et al., healthy participants took haloperidol—a dopamine receptor inhibitor—on one day and a placebo pill on another before completing an emotion recognition task. They assessed videos of people expressing an emotion through their posture and gait (i.e., slow movements for sadness, quick, jerky movements for anger). The researchers also indirectly measured each person's baseline dopamine levels by testing their working memory. The effects of haloperidol varied in each person depending on their baseline dopamine levels. In people with low dopamine, the drug increased their ability to recognize emotions, while in people with high dopamine, the drug impaired their ability.

Future work will examine how changes in dopamine levels in disorders like Parkinson's disease contribute to social cognition impairments.

**More information:** Dopaminergic modulation of dynamic emotion perception, *JNeurosci* (2022). [DOI: 10.1523/JNEUROSCI.2364-21.2022](https://doi.org/10.1523/JNEUROSCI.2364-21.2022)

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