

# Scientists Pin Down a Link Between Happiness and 1 Daily Activity

June 01, 2020

Even under normal circumstances, it's tough to get motivated to bike across town or visit a museum when you're feeling low. But that's exactly what you should do, scientists say. Exploring the unknown has a powerful influence on mood, according to a [study](#) published Monday in the journal *Nature Neuroscience*.

Researchers tracked the location and mood fluctuations of 122 people across New York City and Miami over three to four months. An analysis of movement patterns and reported emotions revealed an intuitive insight that had yet to be empirically demonstrated: Experiencing new and diverse experiences on a daily basis is linked to positive emotions.

This finding suggests that people feel happier when they go to novel places and have a wider array of experiences, co-author [Catherine Hartley](#), a psychologist at New York University, tells *Inverse*. The key is having more variety in daily routines.

The relationship goes both ways: Exploring seems to make people happier, and people who are happier explore more.

"New and varied experiences are broadly beneficial for the brain and for humans in general," co-author [Aaron Heller](#), a psychologist at the University of Miami, tells *Inverse*.

"Even if you may not tend towards exploring, there are probably benefits to doing so, regardless of your past experiences."

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To answer this question, the team harnessed GPS data from people's phones. They continually tracked 122 participants' daily movements based in New York City and Miami for three to four months.

Using the location data, the team quantified each individual's roaming entropy, a measurement often used in [animal studies](#). Roaming entropy captures a human or animals' level of exploration — how often they visit various locations and how they distribute their time.

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During the same period, the researchers texted participants every other day asking questions to capture their feelings, both positive and negative. They asked how happy, excited, strong, relaxed, attentive, irritable, sluggish, nervous, jittery, or upset they felt on a given day.

The results revealed a finding you might have experienced, but one that's not been demonstrated by a study before: On days when people had more variability in their physical location — visiting more locations in a day and spending proportionately equitable time across these locations — they reported feeling **MORE POSITIVE EMOTIONS**.

These positive feelings were also related to the day's levels of novelty: the number of new locations that they visited in the day, as well as the diversity of the experiences that they had in those locations. They broke down the data by various socioeconomic factors like employment level, race, and gender in a given area, and found that greater diversity and novelty of these factors also correlated with positive affect.

“The findings suggest that novelty is important, but experiential diversity is as well,” Hartley says.

Interestingly, people felt more positively the day after a high roaming entropy score as well.

“We find that if I feel better today, I'm likely to move around and have more novel experiences and have more experiential diversity the following day, and vice versa,” Hartley says. “If I have more novel and diverse experiences today, I'm likely to feel better not only today but the next day.”

The findings suggest a cyclical, bidirectional relationship between affect — or mood — and new, diverse experiences.

“If you've had positive experiences in new and uncertain locations, you are probably more likely to think that those new kinds of experiences are opportunities for positive feelings and rewarding experiences,” Heller says.

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**WHAT THIS STUDY MEANS FOR LIVING IN LOCKDOWN** — Since many people's daily activities remain limited with social distancing, these findings may seem impossible to put into practice. But the researchers say fresh, diverse experiences can be had without ever leaving your house, and may do wonders for your mental well being.

“You can create variability in the experiences you're having in a day through your movement to the degree possible,” Hartley says. Exploring could mean walking a new path or trying a new skill like painting or drawing in an unfamiliar setting. It's about exposing yourself to “sights, sounds, and experiences” that you haven't had recently, Hartley says.

“At a time where our movement is constrained, maybe it would be similarly beneficial to seek out other

forms of novel experiences — what you're reading, what you're watching, who your social contacts are—in the ways that it's still possible to create diversity in the experiences in your control," Hartley explains.

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