

# Personality traits can be revealed by movement, study shows

March 22 2016

---



Credit: George Hodan/public domain

A pioneering new study has revealed how an individual's movement can give a unique insight into their inherent personality traits.

The ground-breaking study could open up new pathways for [health professionals](#) to diagnose and treat [mental health](#) conditions in the future.

A team of experts, including from the University of Exeter, has shown that [people](#) who display similar behavioural characteristics tend to move their bodies in the same way.

The new study suggests that each person has an individual motor signature (IMS), a blueprint of the subtle differences in the way they move compared to someone else, such as speed or weight of [movement](#) for example.

Using a plain mirror game - in which two 'players' are asked to imitate each other's movements - the team showed that people who have similar movements will tend to display more organised collective behaviour.

The team, which also includes experts from the University of Bristol, Montpellier University and the University of Naples Federico II, believes that these findings indicate that people with comparable movement blueprints will therefore find it easier to coordinate with each other during interpersonal interactions.

The team also believe that a person's IMS - and how they interact with others - could give an insight into their mental health condition, and so pave the way for personalised prediction, diagnosis or treatment in the future.

The study is published in leading scientific journal, *Interface*, on Wednesday March 23.

Professor Krasimira Tsaneva-Atanasova, who specialises in Mathematics in Healthcare at the University of Exeter said: "Although human movement has been well studied, what is far less well understood is the differences each of us displays when we move - whether it is faster, or lighter, or smoother for example.

"This study shows that people who move in a certain way, will also react in similar ways when they are performing joint tasks. Essentially, our movements give an insight into our inherent personality traits.

"What we demonstrate is that people typically want to react and interact with people who are similar to themselves. But what our study also shows is that movement gives an indication of a person's behavioural characteristics. This could therefore be used in the future to help diagnose patients with certain conditions by studying how they move and react to others."

The study 'Dynamic similarity promotes interpersonal coordination in joint action', is published in the Royal Society journal *Interface*.

**More information:** Dynamic similarity promotes interpersonal coordination in joint action, *Journal of the Royal Society Interface*, [rsif.royalsocietypublishing.org ... .1098/rsif.2015.1093](https://royalsocietypublishing.org/doi/10.1098/rsif.2015.1093)

Provided by University of Exeter

Citation: Personality traits can be revealed by movement, study shows (2016, March 22) retrieved 20 April 2024 from <https://medicalxpress.com/news/2016-03-personality-traits-revealed-movement.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.