

## Running style may be linked to personality type, study suggests

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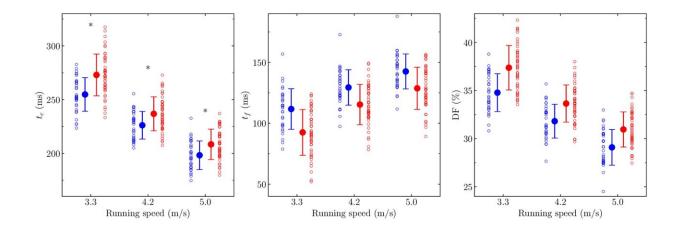
A team of human biomechanics specialists at Volodalen SportLab, has found evidence that suggests running style may be related to personality type. The researchers conducted an experiment with 80 adult volunteers engaging in running and testing trials and <u>published</u> their study in *PLOS ONE*.

Anecdotal evidence suggests that people have different running styles—some run smoothly, with apparent ease, while others run awkwardly, or stiffly, appearing as if the task is uncomfortable or even foreign to them. Such different styles would seem to be based largely on <a href="mailto:physical attributes">physical attributes</a>—natural athletes would have a more natural <a href="mailto:style">style</a>, for example—but the team in France has found that such styles may also be related to a person's personality.

In this new effort, the research team suspected that personality might play a role in running style. To find out if that might be the case, they asked 80 adult volunteers to run a 50-meter track three times. Each volunteer varied their speed between runs. As the volunteers ran, the researchers filmed them.

Each <u>volunteer</u> also took the standard MBTI test, which has been used by many in the psychology profession to categorize patient personalities. The test results group a person based on four categories: thinking-feeling, sensing-intuition, judging-perceiving, and extraversion-introversion.





Temporal characteristics of the running form for intuition and sensing runners. a, contact time  $(t_c)$ ; b, flight time  $(t_f)$ ; c, duty factor (DF). Intuition runners (blue symbols; left side) exhibited shorter  $t_c$  (p = 0.002), longer  $t_f$  (p  $_c$  (p = 0.02). \* Significantly shorter  $t_c$  for intuition than sensing runners, as reported by the pairwise post-hoc comparisons (p  $\leq$  0.02). Empty circles denote the data of each participant. Credit: *PLOS ONE* (2024). DOI: 10.1371/journal.pone.0300108

By comparing the running styles using the recorded video with the categorization assigned by the MBTI test, the researchers found some patterns. Volunteers with certain personality types tended to have similar running styles to others with similar personality traits.

As an example, they noted that volunteers with an intuitive personality were more likely to use their legs as springs, which led them to run with a stretch-shortening style—a type of running that is seen as more elastic. As another example, those who were deemed as having a sensing type of personality tended to focus more on pushing themselves forward rather than caring about how they might use their bodies to get to the finish line.

The research team concludes that there may indeed be a link between



personality characteristics and running style.

**More information:** Cyrille Gindre et al, Mind to move: Differences in running biomechanics between sensing and intuition shod runners, *PLOS ONE* (2024). DOI: 10.1371/journal.pone.0300108

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