

# Walk this way? Masculine motion seems to come at you, while females walk away

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You can tell a lot about people from the way they move alone: their gender, age, and even their mood, earlier studies have shown. Now, researchers reporting in the September 9th issue of *Current Biology*, a Cell Press publication, have found that observers perceive masculine motion as coming toward them, while a characteristically feminine walk looks like it's headed the other way.

Such studies are done by illuminating only the joints of model walkers and asking observers to identify various characteristics about the largely ambiguous figures.

"It's a really interesting thing," said Rick van der Zwan of Southern Cross University in Australia. "If you look at someone with just their joints illuminated when they aren't moving, it's difficult to tell what it is you are looking at. But as soon as they move, instantaneously, you can tell that it's a person and perceive their nature. You can tell if it's a boy or a girl, young or old, angry or happy.... You can discern all these qualities about their state, affect, and actions with no cues at all about what they look like—with no form at all, just motion."

Many previous studies of biological motion perception have relied on male figures as models, van der Zwan said. One of those earlier studies had noticed an interesting phenomenon: even though you can't really tell whether a so-called point-light figure is facing toward you or away, people seemed to perceive those figures always as facing in their direction.

Now, van der Zwan and his colleagues show that this isn't always true.

In their study, they allowed people to observe point-light figures representing a continuum from an extremely "girly girl" to a "hulking male." At the halfway point in between was a gender-neutral walker that observers judged as male half the time and female half the time.

Their results showed that walking male figures did indeed appear to face toward you. Female figures, on the other hand, seemed as though they faced away. The results are the first to show a link between the perception of gender from biological motion cues and the perception of orientation.

That same pattern emerged regardless of the gender of the person watching, a finding that van der Zwan considers an important clue about the behavior.

"Our data suggest that biological motion is an important cue for social organisms trying to operate in environments where other cues as to the actions or intentions of other organisms may be ambiguous," the researchers wrote. "Whilst the precise role of local cues in mediating these effects requires further explication, it is tempting to speculate that the orientation biases reported here reflect the development of perceptual mechanisms that weigh in the probable cost of misinterpreting the actions and intentions of others. For example, a male figure that is otherwise ambiguous might best be perceived as approaching to allow the observer to prepare to flee or fight. Similarly, for observers, and especially infants, the departure of females might signal also a need to act, but for different reasons."

Source: Cell Press

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