

'Believing you're a winner' gives men a testosterone boost and promiscuous disposition

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A new study shows that men only have to believe they've bested another man in competition to get raised testosterone levels and an inflated sense

of their own value as a sexual prospect.

Scientists found that this hormonal and psychological shift made men more inclined to approach new potential partners.

The research team measured hormone levels, as well as self-perceived attractiveness and confidence in approaching women, in 38 men in their twenties before and after competing in head-to-head battles on rowing machines.

Unbeknownst to participants, the competitions in the study were rigged to randomly declare the winner, regardless of who was the stronger rower.

While previous studies have shown that winning can affect male hormones, it was not known whether this was down to the efforts it takes to win or the belief that one is victorious.

The latest study, led by biological anthropologists from the University of Cambridge and published today in the journal *Human Nature*, reveals that just being convinced you have won, or indeed lost, is enough to cause male hormonal fluctuations that can influence sexual behaviour.

Researchers say this is an example of "plasticity": the body adapting quickly—without altering genetic make-up—to suit a change in circumstance. In this case a perceived change in [social status](#), due to the men believing they have defeated a rival.

The body attempts to take advantage of this apparent status improvement by inducing chemical and consequently behavioural changes that promote a "short-term" approach to reproductive success, say the researchers. Namely, more sex with new and different partners.

"Much of evolution consists of trade-offs in energy investment," said study lead author Dr. Danny Longman, from Cambridge's Department of Archaeology.

"A common trade-off for males both across and within species is between mating strategies. One reproductive approach is short-term, investing time and energy in attracting and pursuing many mates, and fighting off competition. Another approach is long-term, investing energy in raising offspring with a single mate."

"We found that a perceived shift in social status can cause male physiology to adapt by preparing to shift mating strategies to optimise reproductive success."

Longman points out that in many animal populations, male social hierarchies correspond with [reproductive success](#), and social status is determined by competition between males.

The study used a simple proxy for social and sexual competition by pitting athletic young men against each other to see who was the most powerful rower.

"Victory in a rowing contest strongly implies the possession of greater physical strength than the opponent, a trait found to be valued by women in our evolutionary past when choosing a mate," said Longman.

He took saliva samples to test [hormone levels](#) before and after the races. A number of psychological questionnaires were also administered, designed to gauge self-esteem, 'sociosexuality' (willingness to engage in casual sex), 'self-perceived mate value' and mating behaviour (e.g. the likelihood of approaching attractive women). Crucially, Longman and colleagues then manipulated the results of the races.

The men who believed they had won received an average testosterone increase of 4.92%, while those convinced they had lost dropped by an average of 7.24%. Overall, men who thought they were winners had [testosterone levels](#) 14.46% higher than their defeated opponents.

The men who thought they had lost showed no difference in their perceived value as a mate or confidence approaching women. However, the men who felt like winners had a 'self-perceived mate value' that was 6.53% higher, on average, than their rivals, and were 11.29% more likely to approach attractive women in an effort to instigate sexual relations.

"The endocrine system that controls hormones is responsive to situational changes. Previous research has shown that testosterone is lower when men are in a committed relationship, or have children, to promote long-term mating strategies," said Longman.

"Our results show that both testosterone and its corresponding psychological effects can fluctuate quickly and opportunistically, shifting towards short-term mating in response to a perceived change in status that may increase mating value."

Male social status has less to do with physical strength in many modern societies, and Longman would be curious to see if similar results arise from intellectual challenges more familiar to the office-based culture many men now inhabit. There is always the issue of free will, however.

"Male physiology may shift to take advantage of certain situations, but ultimately a man's decisions are up to him."

More information: *Human Nature* (2018). [DOI: 10.1007/s12110-018-9323-5](https://doi.org/10.1007/s12110-018-9323-5)

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