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## The Dwarfs were right! Whistling while you work makes you do your job better

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Whistling while you work may not win you many friends - but it could help you do your job better.

A leading psychologist claims whistling or singing helps distract the mind from trying too hard and prevents mental overload.

The controversial suggestion comes from a study into the phenomenon of 'choking' - the moment when a footballer misses a critical penalty or a top student flunks a vital exam.



The seven dwarfs famously sang the song 'Whistle While You Work' and scientist say that they may have been right all along

Far from being down to 'just nerves', choking occurs when the brain finds itself with too many pieces of information to process, resulting in 'paralysis by analysis', argues Dr Sian Beilock of the University of Chicago.

The same holds true when presenting a vital sales pitch, making an important putt or doing an audition.

Dr Beilock, who used brain scans to study what is going on the mind during high pressure situations in the lab, said: 'Choking is sub-optimal performance, not just poor performance.

'It's a performance that is inferior to what you can do and have done in the past and occurs when you feel pressure to get everything right.'

Some of the most memorable moments of choking occur in sports when the whole world is watching, she said.

In 1996, golfer Greg Norman blew it on the final day of the US Masters, despite having a huge lead. Dr Beilock says he failed because he was thinking too hard about what he was doing.

'My research team and I have found that highly skilled golfers are more likely to hole a simple 3-foot putt when we give them the tools to stop analysing their shot, to stop thinking,' said Dr Beilock, whose research is featured in a new book *Choke: What Secrets of the Brain Reveal About Getting it Right When You Have To*.

'Highly practised putts run better when you don't try to control every aspect of performance.'

Even singing helps stop parts of the brain that might interfere with performance from taking over, she said.

She has dubbed the phenomenon paralysis by analysis - when people try to control every aspect of what they are doing in a bid to ensure success.

The researchers found that the brain can also sabotage performance because too much pressure is put on 'working memory' - part of the prefrontal cortex which focuses explicitly on the task in hand.

Although the most talented people usually have the most working memory, anxieties and worries overload it, meaning the brain is no longer able to perform.

She also encountered the phenomenon of 'stereotype threat' - where cultural myths about sex or race, such as male and female children performing differently in maths, overcome their actual ability.

In one study, standardised tests were given to black and white students, both before and after President Obama was elected.

Black test takers performed worse than white test takers before the election, but immediately after Obama's election, however, blacks' performance improved so much that their scores had shot up.

This was because Obama's election had exploded the myth of racial variation in intelligence, meaning their performances improved, said Prof Beilock.

She said that the best way to overcome choking was relaxation, and practising under pressure.

She said: 'Think about the journey, not the outcome. Remind yourself that you have the background to succeed and that you are in control of the situation.

This can be the confidence boost you need to ace your pitch or to succeed in other ways when facing life's challenges.'

People:

[Greg Norman](#)

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