

What Is Fatigue?

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The New Yorker:

When, on a blustery day in Oxford in 1954, Roger Bannister ran the first sub-four-minute mile, measuring out the full capacity of his lungs and legs and collapsing across the finish line, he felt, as he later wrote, “like an exploded flashlight.” That was the feeling researchers were trying to evoke, recently, when they paid thirteen volunteers at Bangor University, in Wales, to pedal a stationary bike at a predetermined pace for as long as they could. Such “time to exhaustion” trials are a well-established method of measuring the limits of physical endurance, but in this case the experiment also had a hidden psychological component. As the cyclists pedalled, a screen in front of them periodically flashed images of happy or sad faces in imperceptible sixteen-millisecond bursts, ten to twenty times shorter than a typical blink. The cyclists who were shown sad faces rode, on average, twenty-two minutes and twenty-two seconds. Those who were shown happy faces rode for three minutes longer and reported less of a sense of exertion. In a second experiment, the researchers demonstrated that subliminal action words (GO, LIVELY) could boost a subject’s cycling performance by seventeen per cent over inaction words (TOIL, SLEEP).

Read the whole story: [*The New Yorker*](#)