

Helmet wearing increases risk taking and sensation seeking

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In their experiment, Dr Ian Walker and Dr Tim Gamble split participants into two groups: half wore a bicycle helmet and half wore baseball caps.

Wearing a helmet in an effort to stay safe is likely to increase sensation seeking and could conversely make us less safe and more inclined to take risks, according to a significant new study from our researchers.

The latest findings call into question the effectiveness of certain safety advice, notably in relation to <u>helmets</u> for various leisure activities, including cycling. But, the researchers suggest, their conclusions have



wider-reaching implications in other contexts too, potentially even for decision making on the battlefield.

Risk taking and sensation-seeking behaviour

For their latest study published recently in the journal *Psychological Science*, Dr Tim Gamble and Dr Ian Walker, from the Department of Psychology, measured sensation-seeking behaviour and analysed risk taking in adults aged 17-56 using a computer-based simulation.

Under the pretence that participants were taking part in an eye-tracking experiment, the researchers split 80 participants into two groups: half wore a bicycle helmet and half wore a baseball cap. Individuals were tasked with inflating an on-screen animated balloon whilst wearing either the cap or the helmet – which they were told was just there to support an eye-tracking device.

In the experiment, each inflation of the balloon earned participants points (a fictional currency) and they were told at any stage they could 'bank' their earnings. If the balloon burst, all earnings would be lost.

Over 30 trials, the researchers tested each individual's propensity to keep on inflating and used this to measure the likelihood of them taking more risks, comparing those wearing a cap with those wearing a helmet.

Impacts for cycling

Dr Ian Walker explains: "The helmet could make zero difference to the outcome, but people wearing one seemed to take more risks in what was essentially a gambling task. The practical implication of our findings might be to suggest more extreme unintended consequences of safety equipment in hazardous situations than has previously been thought.



Replicated in real-life settings, this could mean that people using protective equipment might take risks against which that protective equipment cannot reasonably be expected to help.

"Several studies in the past have looked at so-called 'risk compensation', suggesting that people might drive differently when wearing seatbelts, or make more aggressive American football tackles when wearing helmets. But in all those cases, the safety device and the activity were directly linked – there's a certain logic to sports people being more aggressive when wearing equipment that is specifically intended to make their sport safer. This is the first suggestion that a safety device might make people take risks in a totally different domain."

Previous studies from Ian Walker have also hinted that safety equipment might not be as effective as many people assume. In the past he has suggested that high-vis clothing does not stop drivers overtaking cyclists dangerously and that wearing a helmet might make drivers pass cyclists closer when overtaking.

Wider implications

Dr Tim Gamble expands: "All this is not to say that people shouldn't wear safety equipment, but rather to say that the whole topic is far more complicated than most people think. We need to be mindful of the unintended consequences which might exist and not just apply 'common sense' when it comes to addressing safety concerns.

"If feeling protected does make people generally more reckless – which is what these findings imply – then this could affect all sorts of situations, perhaps even how soldiers make strategic decisions when wearing body armour. This all suggests that making people safe in dangerous situations isn't a simple issue, and policy makers need to remember this. Countries that have tried to solve the issue of cycling



safety by making bicycle helmets compulsory, for example, might want to ask whether this is really the right approach for making people safe."

More information: T. Gamble et al. Wearing a Bicycle Helmet Can Increase Risk Taking and Sensation Seeking in Adults, *Psychological Science* (2016). DOI: 10.1177/0956797615620784

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