

Researchers examine how we experience time

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(Medical Xpress)—How people experience time may be affected by the way that they perceive cause and effect, new research by the University has shown.

Dr Marc Buehner of the School of Psychology examined how causal belief – understanding that one thing leads to another (for example flicking a switch and a light coming on) – influences [time](#) perception.

As part of the research, participants were asked to predict when a light would flash. In one part of the study, the target flash was preceded by a signal light; in two further parts, participants either pressed a button to make the light flash, or a separate machine pressed the button to make the light flash.

Results showed that predictions in the first group of when the light would flash were significantly later than those in the other two groups,

even though the intervals were exactly the same. In these groups, the causal connection participants had formed in their minds changed their perception and motor planning – time appeared shorter between the cause (pressing the button themselves or a machine doing this) and the effect (the flash of the light).

Speaking about the results, Dr Buehner said: "Here we can show that perceptions are subject to systematic distortions depending on people's causal beliefs - if people believe that they, or someone or something else, are in charge, time appears to pass faster. In contrast, just knowing when something will happen, in the absence of causality, did not change [time perception](#)."

Dr Buehner believes that these findings may have practical implications for usability engineers and interface designers.

The research was funded by the Engineering and Physical Sciences Research Council and the Experimental Psychology Society and is published in the journal [Psychological Science](#).

Provided by Cardiff University

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