

Feeling powerless increases the weight of the world... literally

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Scientists have found that people who feel powerless actually see the world differently, and find a task to be more physically challenging than those with a greater sense of personal and social power.

Eun Hee Lee - a researcher working with Dr Simone Schnall at Cambridge's Department of Psychology - carried out a series of tests in which volunteers were surreptitiously surveyed about their own social power, then asked to lift boxes of varying weights and guess how heavy they were. Those who felt powerless consistently perceived the weight of the boxes as much heavier than those who felt more powerful.

The study is the first demonstration that power – a 'psychosocial' construct relating to the control of resources – changes peoples' perception of objects; that how you feel about your social standing in a situation can influence how you see the [physical environment](#).

The researchers say this overestimation of weight may be an adaptive strategy when faced with a lack of resources: when in a position of powerlessness, it would be 'advantageous' to have an overly cautious approach to the world in order to preserve your existing limited resources.

Experiencing perceptual attributes of the world – such as the weight of objects - in an "exaggerated fashion" when feeling powerless might be symptomatic of this instinctive resource conservation.

The study is published this week in the *Journal of Experimental Psychology*.

"Although many psychological studies have been conducted on power not much was known about how power influences actual perceptual experiences in everyday life," said lead researcher Eun Hee Lee.

"This research demonstrates that people's social role, as indicated by a sense of social power, or a lack therefore, can change the way they see the physical environment."

To measure a person's sense of their own social power, Lee and Schnall conducted three separate studies – all disguised by cover stories so that participants were unaware of what was being tested.

In the first, 145 participants were asked to rank how strongly they felt a series of statements applied to them – such as "I can get people to listen to what I say" – to measure beliefs about their power in social relationships. They were then tasked with lifting a number of boxes and guessing the weight, before taking a final test to gauge their mood. Researchers found that the lower a person's feelings of social power, the more they thought the boxes weighed.

In the second test, the researchers manipulated the sense of power by asking 41 participants to sit in either an expansive, domineering position – with one elbow on the arm of their chair and the other on the desk next to them – or a more constricting one, with hands tucked under thighs and shoulders dropped.

Prior to manipulation, most participants overestimated the weight; after manipulation, those who sat in the more powerful pose gave more accurate estimates, while those in the submissive condition continued to imagine heavier weight.

In the final test, 68 participants were asked to recall an experience in which they had felt either powerful or powerless, and then repeatedly estimate the weights of various boxes - under the guise of studying the effect of exercise on autobiographical memory. Those who focused on the powerful incident became more accurate at guessing the [weight](#), while those recalling a powerless situation

continually overestimated the heaviness of the boxes.

While previous research has shown that various physical and emotional states can influence perception of the environment – such as perceiving a hill slant to be steeper when wearing a heavy backpack, or threatening objects, such as a tarantula, appearing to be further from your face when feeling good about yourself – this is the first study to show that a sense of power can now be added to that list.

Giulio Andreotti, the former Italian Prime Minister who was nicknamed 'Il Divo' after the epithet for Julius Caesar, famously once said that "power tires only those who do not have it". Lee and Schnall write that this comment is "no longer an unsubstantiated conjecture", and that their data suggests the world of the powerless "is indeed full of heavy burdens".

Added Lee: "Power plays a role when it is present in a given moment, but also when it comes to people's personality. We find that personality, which determines how people interact with the social world, also shapes how people interact with the physical world."

Provided by University of Cambridge

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