

You don't know what you don't know!

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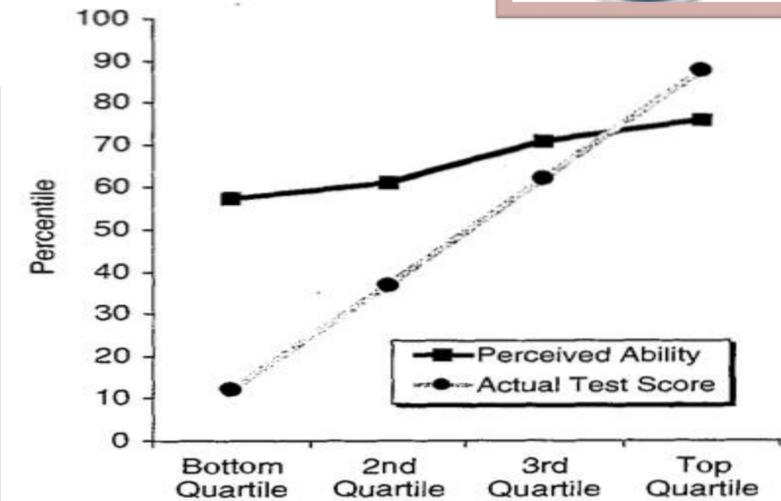


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Introduction :

A condition of cognitive bias called illusory superiority is the scientific explanation of why ignorant people are surprisingly confident. This condition means that when people with a below-average abilities overestimate their abilities in almost everything in life. The problem is that when people are incompetent, not only they reach wrong conclusions and make false choices but also they lack the ability to realize their mistakes.^[2]



(figure.1) 1Comparison of actual score vs. perceived score.

What is Dunning-Kruger effect ?

Dunning-Kruger effect is a series of psychological studies done by Professor David Dunning of Cornell University and his graduate student Justin Kruger to investigate illusory superiority phenomenon and to find an explanation for it.^[1] The effect can also be summarized by the phrase "a little knowledge is a dangerous thing."



Experiment and results :

Dunning and Kruger designed a clever experiment. In one study, they asked undergraduate students a series of questions about grammar, logic and jokes, and then asked each student to estimate his score overall as well as his relative rank compared to the other students. Interestingly, students who scored the lowest always overestimated how well they did, on the other hand students who scored nearest the bottom estimated that they had performed better than two-thirds of the other students!^[1]

Examples from everyday life :

- 1- A simple example of this condition is driving ability. One study found that 80% of drivers rate themselves as above-average drivers.
- 2- A group of people with no medical or scientific qualifications are refusing to vaccinate their children for fear of them developing autism. Even though there is no scientific link between vaccines and autism!^[1]

Conclusion :

From another side, some studies showed that there are some areas in the brain are responsible for this superiority illusion. It is reported that relating oneself to positive traits is associated with activation of the medial prefrontal cortex, as well as the supplemental motor area and anterior cingulate cortex. Moreover, activation of the dorsal anterior cingulate cortex and orbitofrontal cortex is negatively associated with the degree of the superiority illusion.^[2]

References :

- 1- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of personality and social psychology*, 77(6), 1121.
- 2-Tiger L. *Optimism: The Biology of Hope*. New York: Simon 1979.