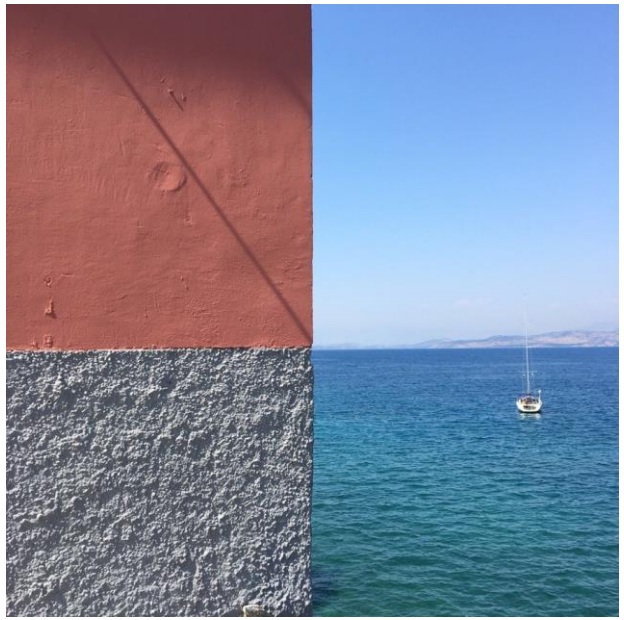
Algunas reflexiones útiles



Dr. Boris Branisa C.

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Review

Don't throw away your printed books: A meta-analysis on the effects of reading media on reading comprehension

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Digital-based reading
Paper-based reading
Meta-analysis

ABSTRACT

With the increasing dominance of digital reading over paper reading, gaining understanding of the effects of the medium on reading comprehension has become critical. However, results from research comparing learning outcomes across printed and digital media are mixed, making conclusions difficult to reach. In the current meta-analysis, we examined research in recent years (2000–2017), comparing the reading of comparable texts on paper and on digital devices. We included studies with between-participants (n = 38) and within-participants designs (n = 16) involving 171,055 participants. Both designs yielded the same advantage of paper over digital reading (Hedge's $g = -0.21$; $d_c = -0.21$). Analyses revealed three significant moderators: (1) time frame: the paper-based reading advantage increased in time-constrained reading compared to self-paced reading; (2) text genre: the paper-based reading advantage was consistent across studies using informational texts, or a mix of informational and narrative texts, but not on those using only narrative texts; (3) publication year: the advantage of paper-based reading increased over the years. Theoretical and educational implications are discussed.

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Sec. Educational Psychology
Volume 14 - 2023 | https://doi.org/10.3389/fpsyg.2023.1219945

Handwriting but not typewriting leads to widespread brain connectivity: a high-density EEG study with implications for the classroom


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As traditional handwriting is progressively being replaced by digital devices, it is essential to investigate the implications for the human brain. Brain electrical activity was recorded in 36 university students as they were handwriting visually presented words using a digital pen and typewriting the words on a keyboard. Connectivity analyses were performed on EEG data recorded with a 256-channel sensor array. When writing by hand, brain connectivity patterns were far more elaborate than when typewriting on a keyboard, as shown by widespread theta/alpha connectivity coherence patterns between network hubs and nodes in parietal and central brain regions. Existing literature indicates that connectivity patterns in these brain areas and at such frequencies are crucial for memory formation and for encoding new information and, therefore, are beneficial for learning. Our findings suggest that the spatiotemporal pattern from visual and proprioceptive information obtained through the precisely controlled hand movements when using a pen, contribute extensively to the brain's connectivity patterns that promote learning. We urge that children, from an early age, must be exposed to handwriting activities in school to establish the neuronal connectivity patterns that provide the brain with optimal conditions for learning. Although it is vital to maintain handwriting practice at school, it is also important to keep up with

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"Our results reveal that whenever handwriting movements are included as a learning strategy, more of the brain gets stimulated, resulting in the formation of more complex neural network connectivity...typewriting do[es] not activate...networks the same way that handwriting does."

"Handwriting requires fine motor control over the fingers, and it forces students to pay attention to what they are doing. Typing, on the other hand, requires mechanical and repetitive movements that trade awareness for speed."

this is why @robertghrist and all the mathematicians use chalkboards and not slides

the mathematicians are right...again

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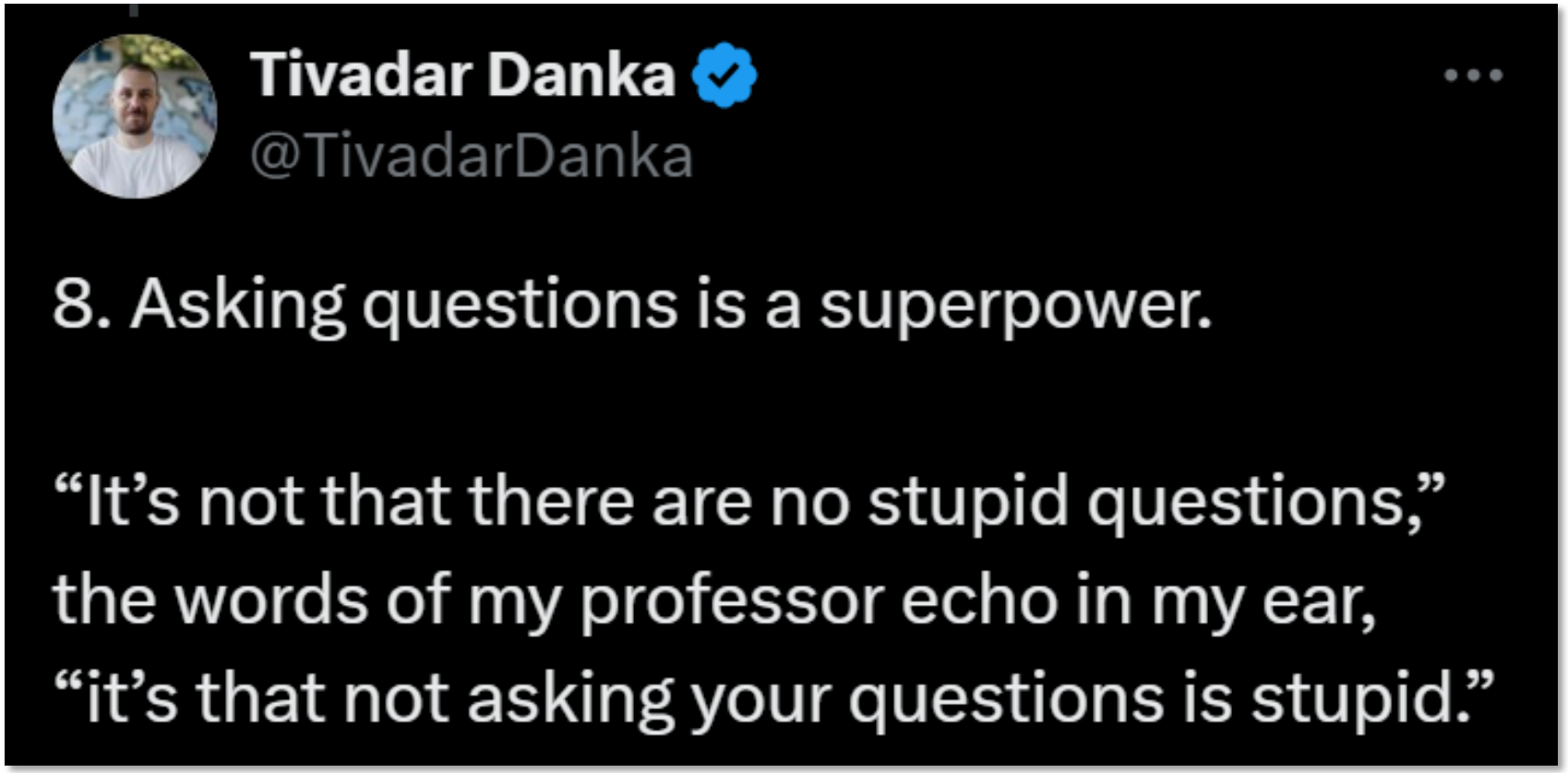

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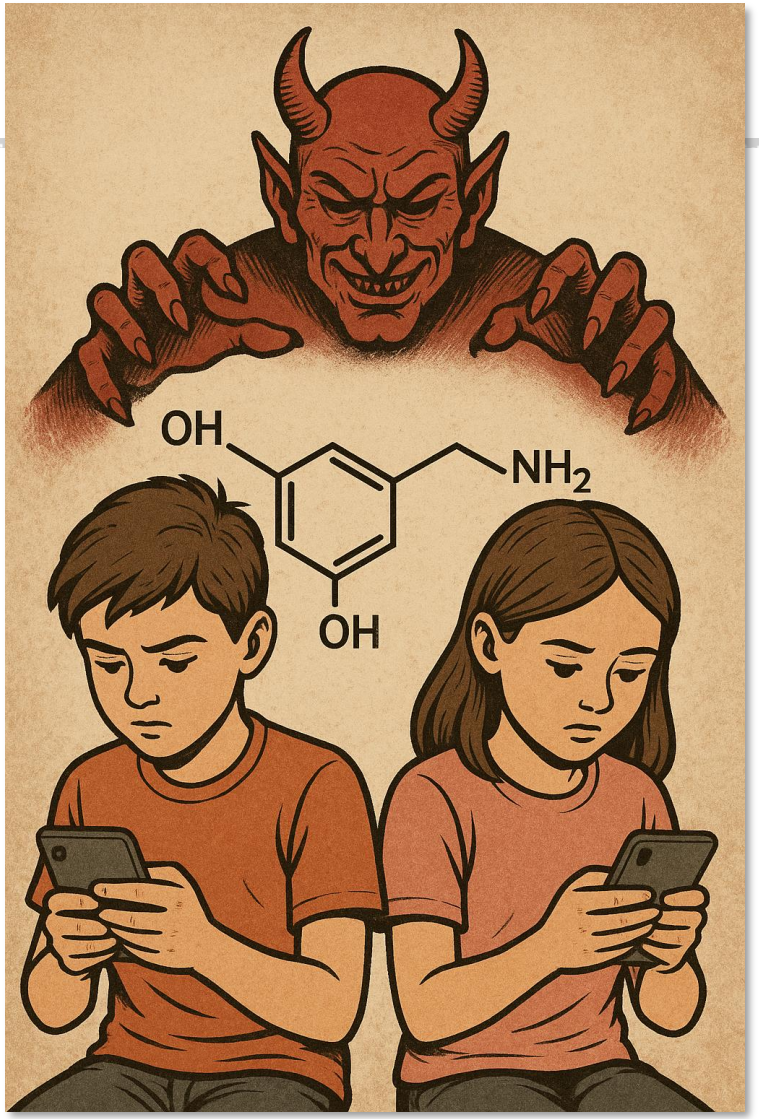
Navalism
@NavalismHQ

"The modern devil is cheap dopamine."

@naval

3.3k Likes



Conceptual illustration of “The modern devil is cheap dopamine.” Image created with DALL·E, prompted by B.Branisa via OpenAI ChatGPT, July 2025.

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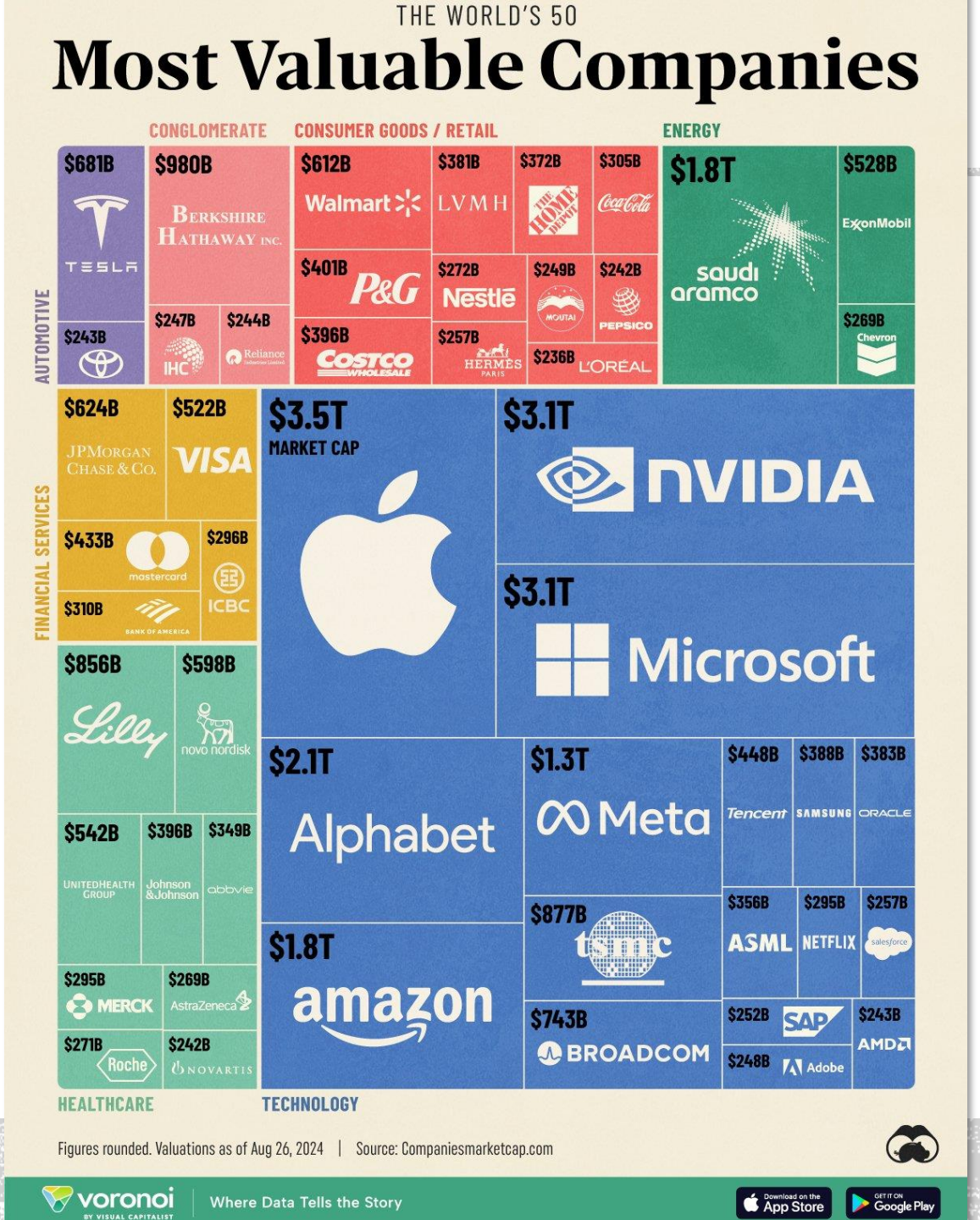

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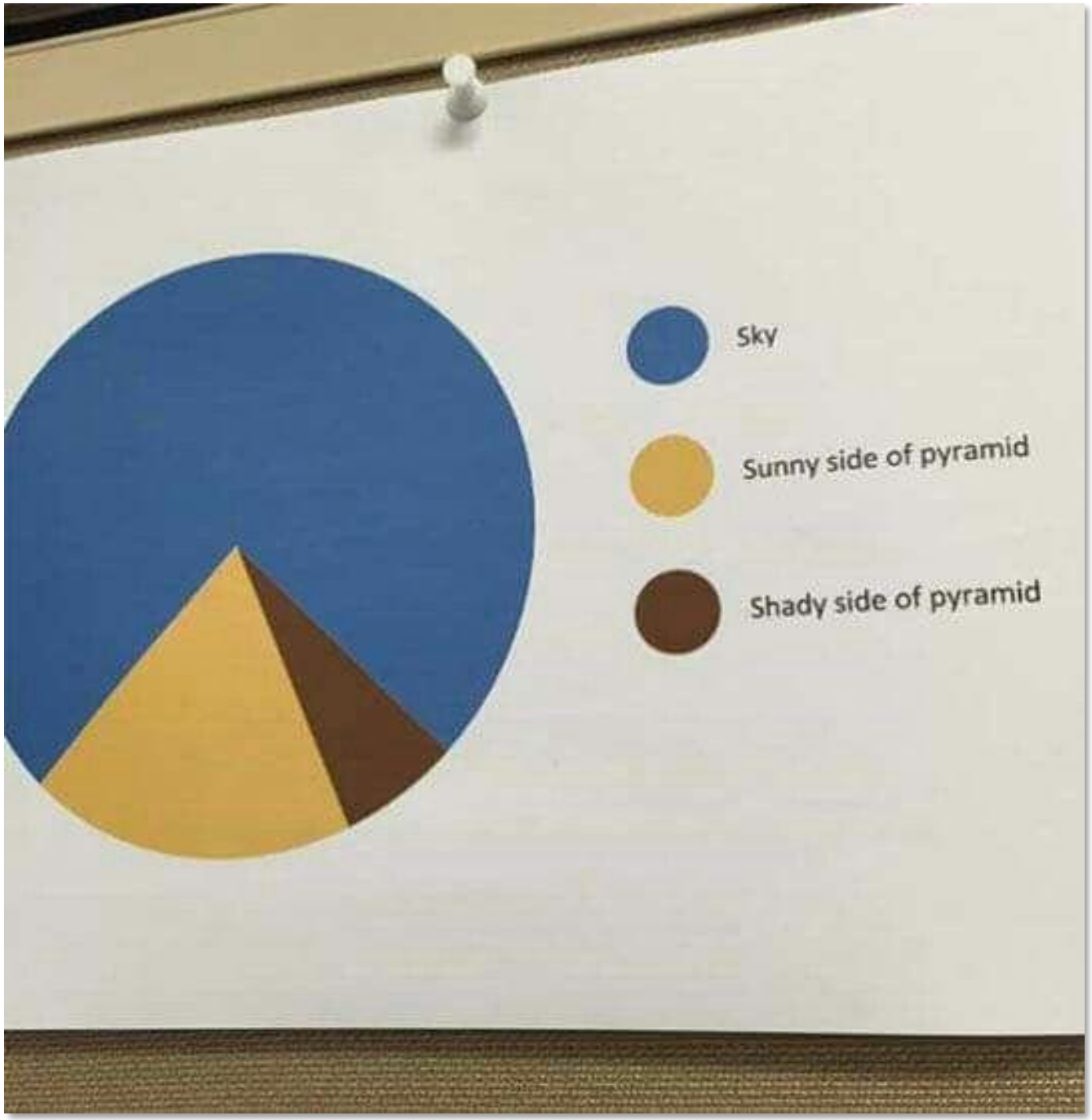
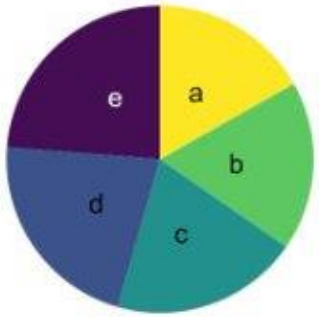
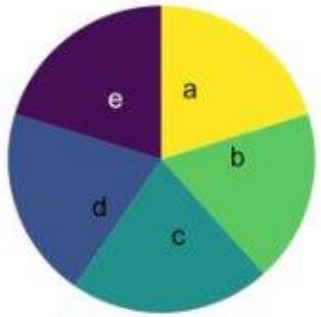


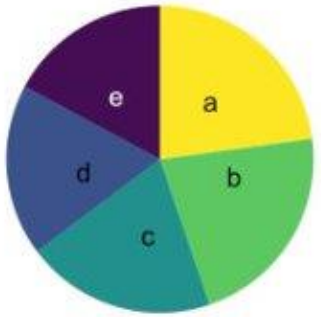
Pie charts

The only time when pie chart use is appropriate -

El único momento en que el uso de diagramas circulares o de torta es apropiado





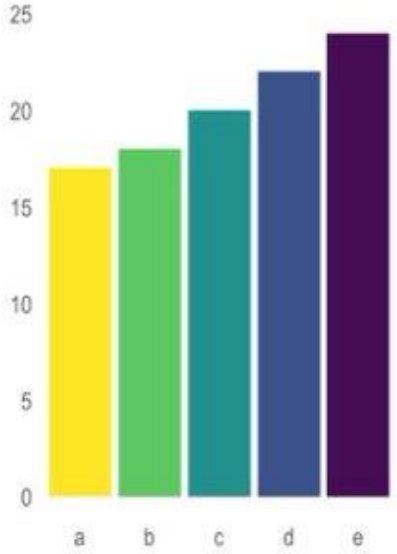


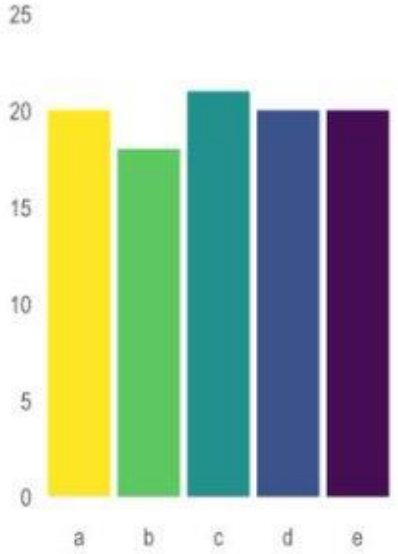
Pie charts

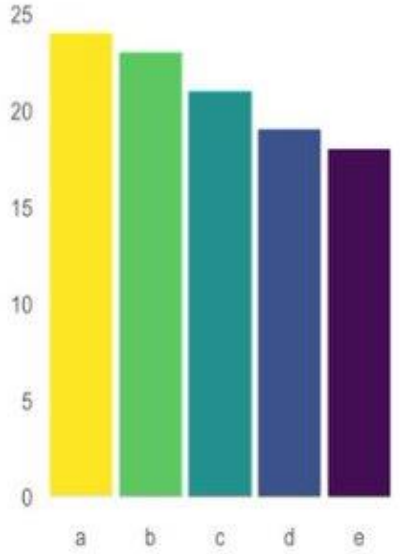
...

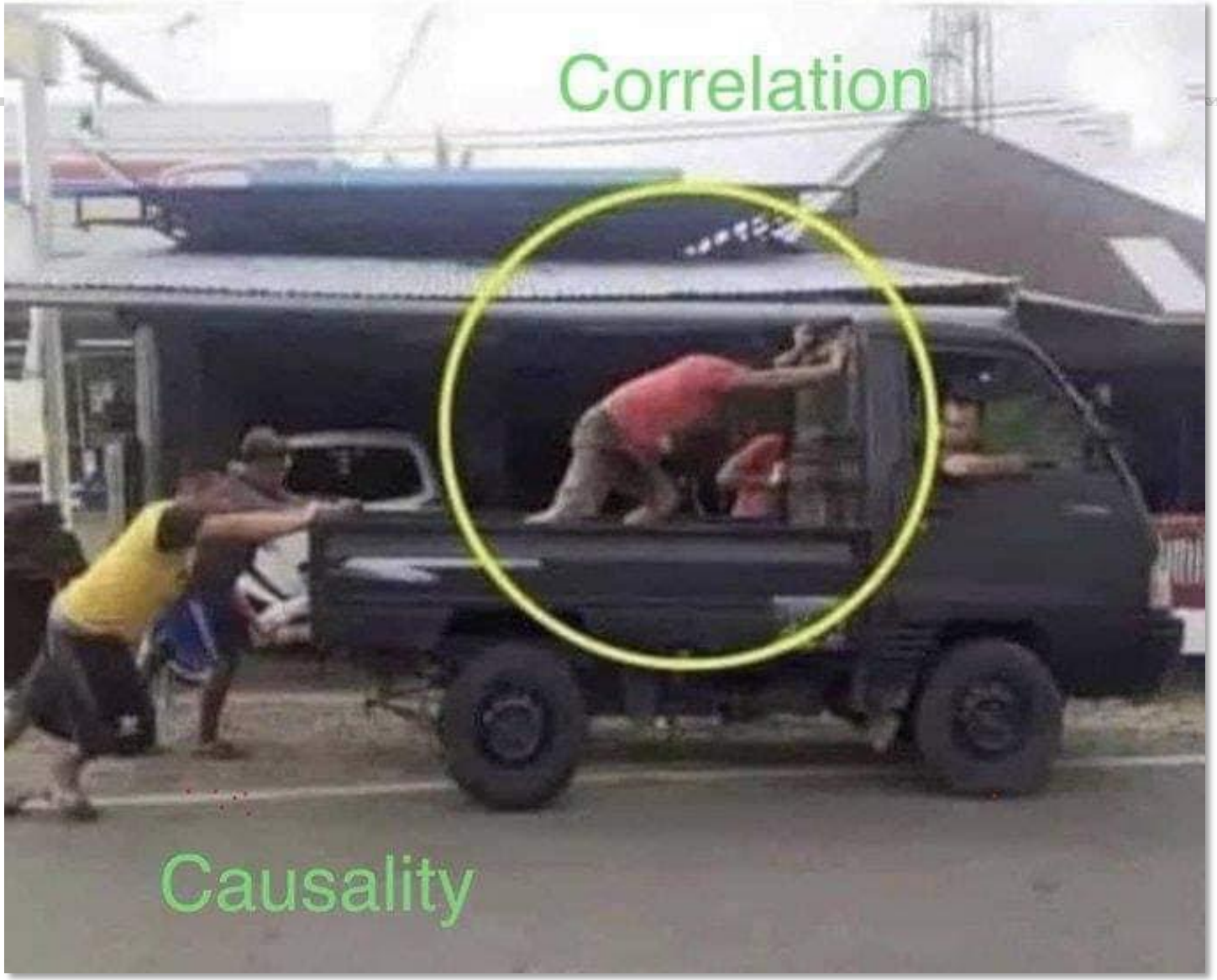
Now, let's represent exactly the same data using a barplot:

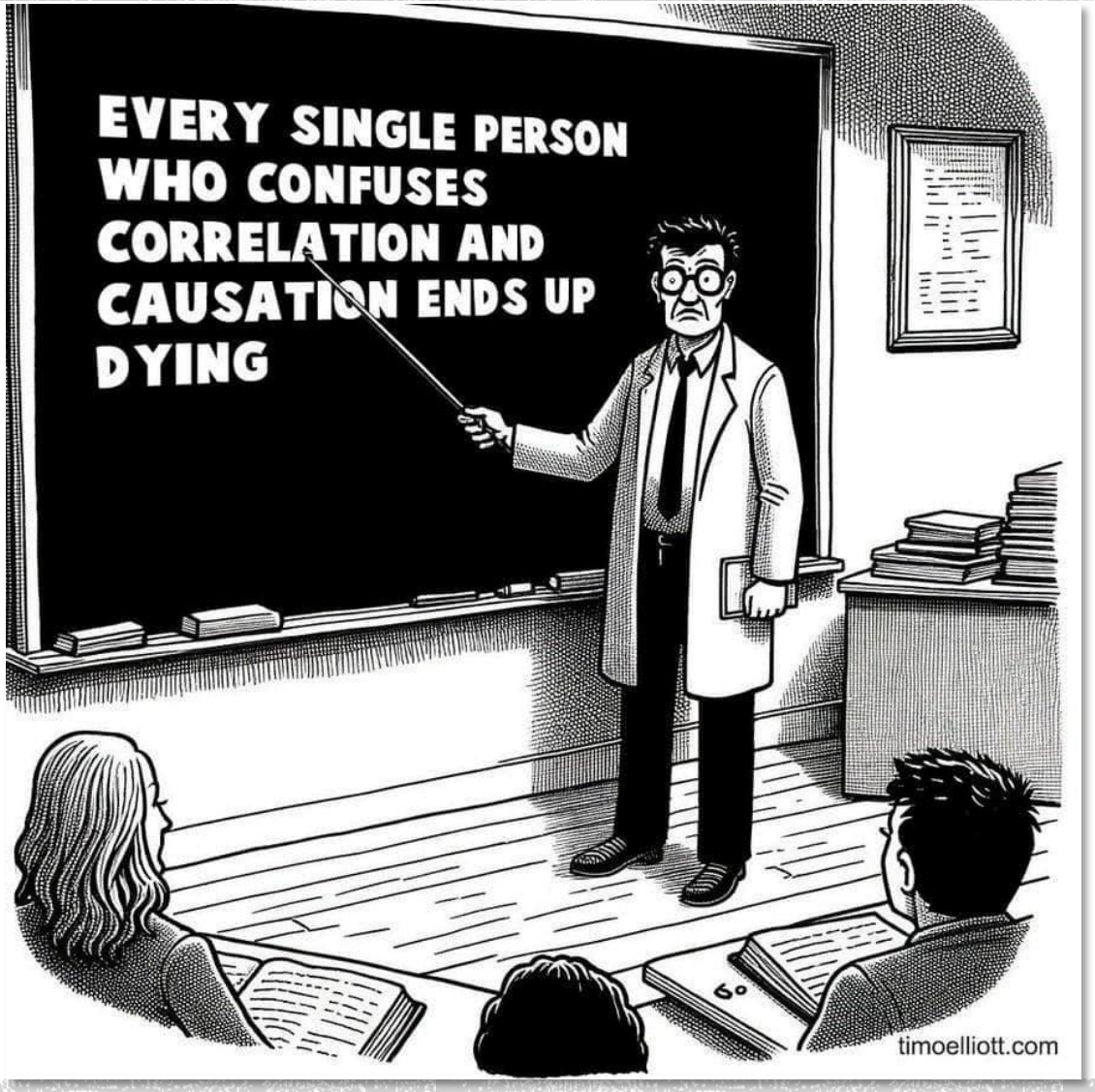
CODE

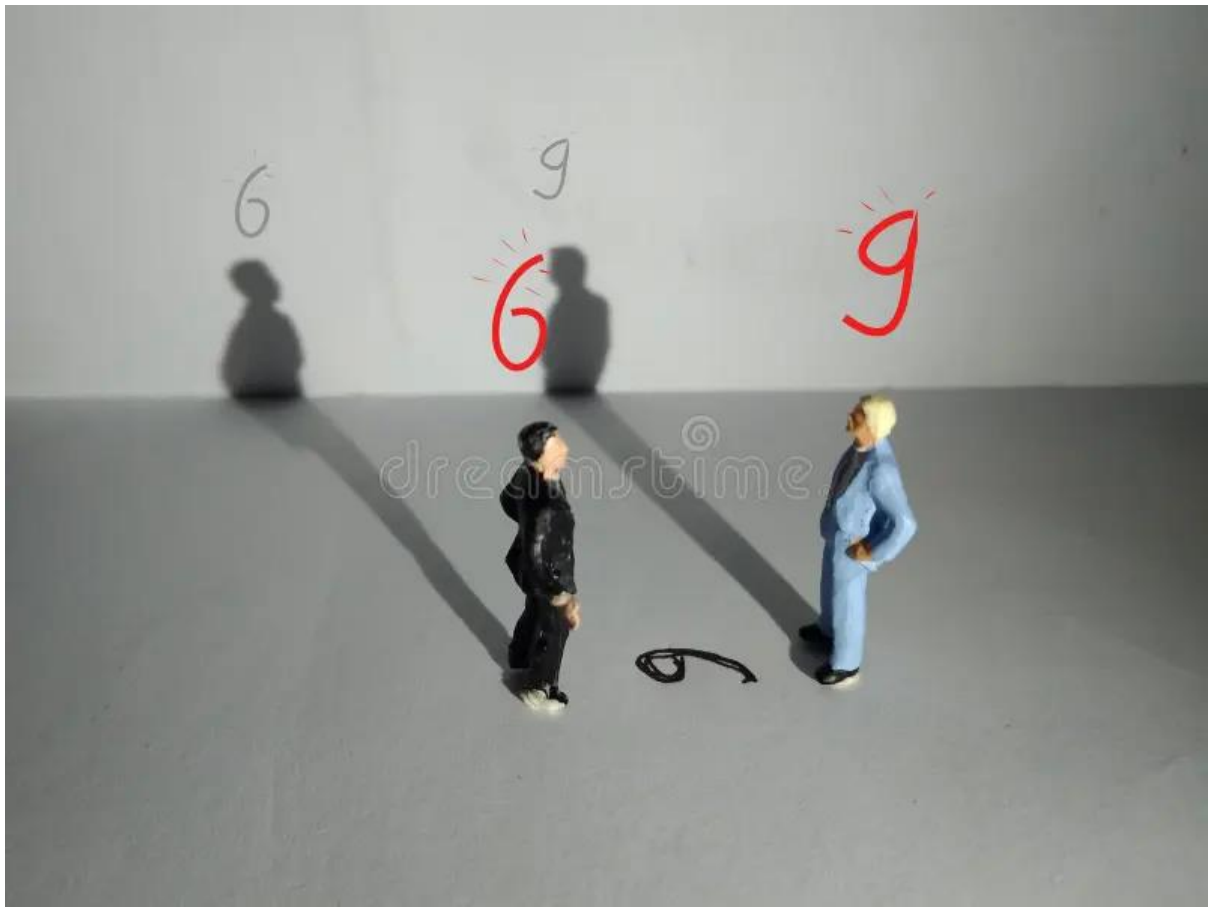


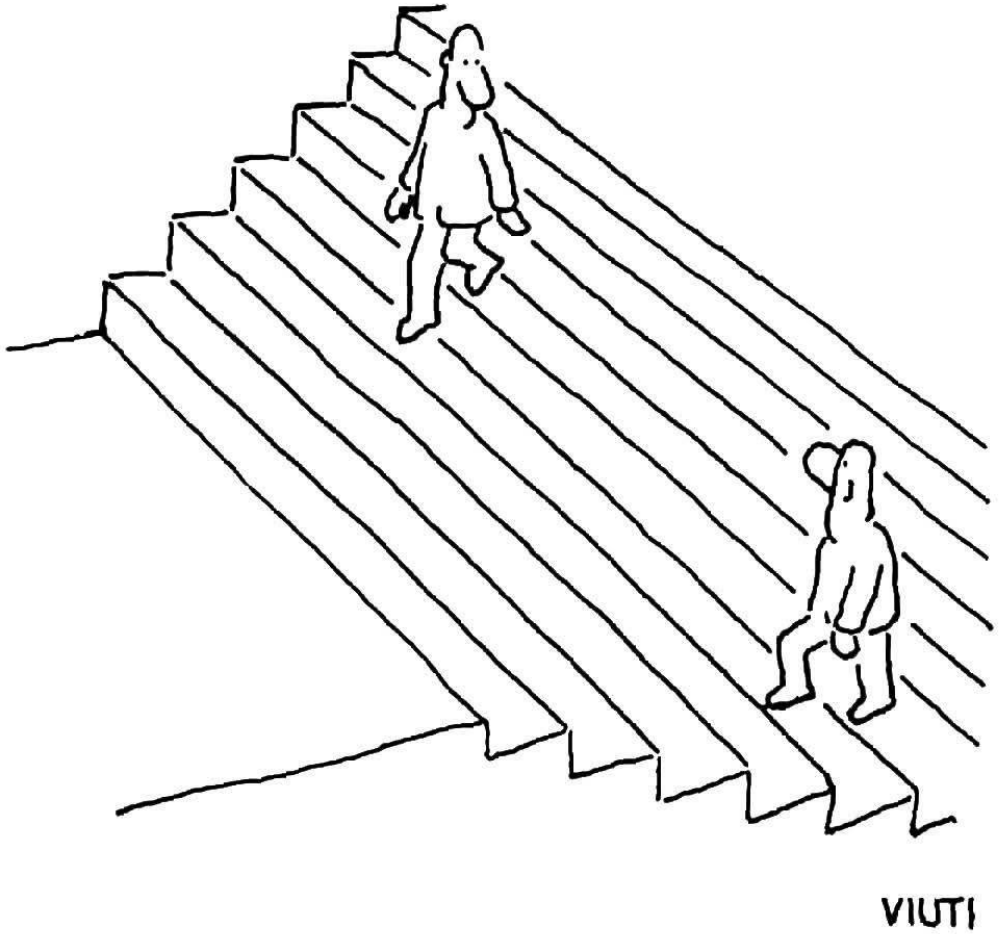





Correlation
Causality


EVERY SINGLE PERSON WHO CONFUSES CORRELATION AND CAUSATION ENDS UP DYING
timoelliott.com





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