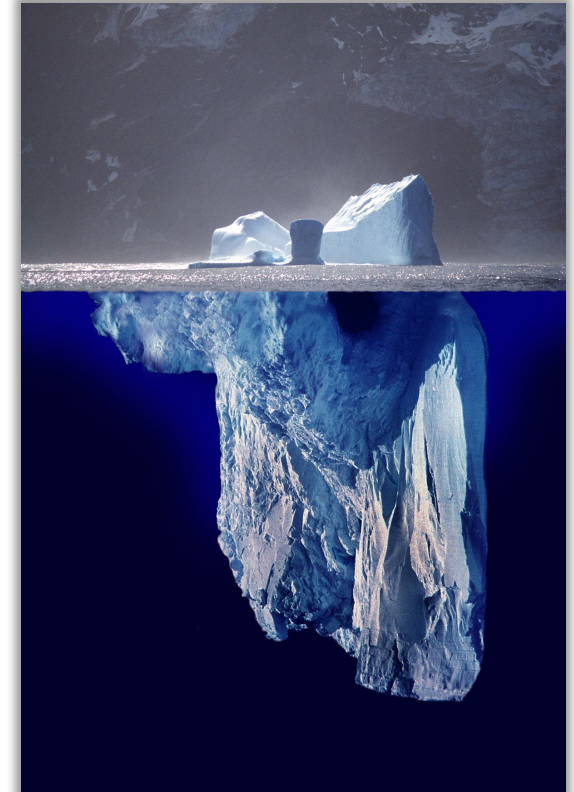


False-Positive Science?

- When conducting a meta-analysis, we take it as a given that the data we collected is **comprehensive**, or at least **representative of the research field** under examination.
 - Unfortunately, there are also good reasons to assume that some studies are **not missing completely “at random”** from our collected data.
 - Our world is **imperfect**, and so are the **incentives and “rules”** that govern scientific practice.
 - There are systemic biases that can determine if a study ends up in our meta-analysis or not, or that may distort its results
- **“Iceberg analogy”**: even the most rigorous meta-analysis will only reproduce existing biases if the evidence base itself is distorted

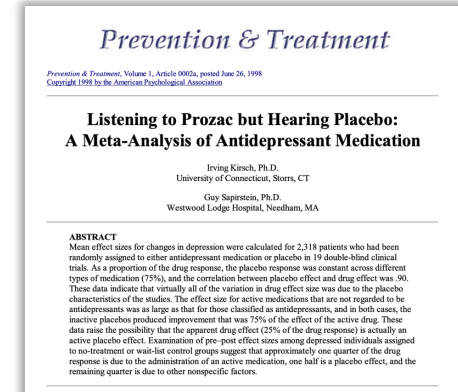
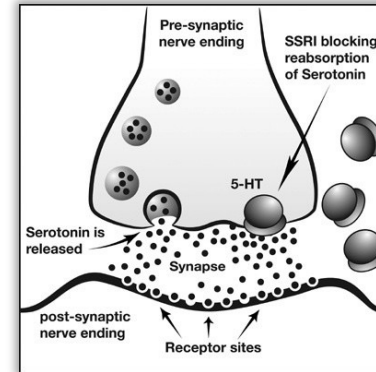


A Cautionary Tale

- Even back in the 1990s, it was considered secured knowledge that **antidepressants** (e.g., selective serotonin re-uptake inhibitors, **SSRIs**) are **effective in treating depression**.
- This evidence was provided by **meta-analyses** of **published pharmacotherapy trials**, in which an antidepressant is compared to a pill placebo.
- Based on the U.S. “Freedom of Information Act”, **Kirsch and colleagues** obtained previously unpublished antidepressant trial data which **pharmaceutical companies** had provided to the **US Food and Drug Administration**.
- They found that when this unpublished data was also considered, the benefits of antidepressants compared to placebos were **at best minimal, and often nonexistent**.

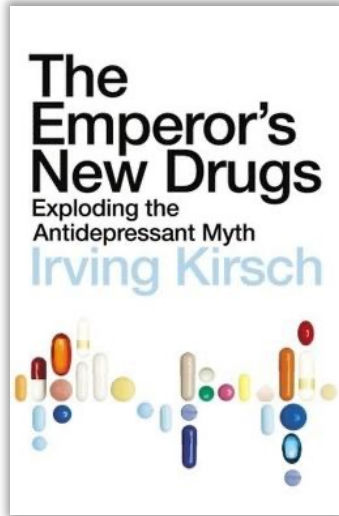


Irving Kirsch



A Cautionary Tale

Video: 60 Minutes – Treating Depression: Is There A Placebo Effect?



A Cautionary Tale

A Few Irreverent Questions:

1. Can you think of another type of “treatment” where placebo effects may also play a crucial role?
2. Most meta-analytic research shows that psychotherapy is not substantially more effective than antidepressants (although psychotherapy is probably more effective in the long run; Cuijpers, 2023)
 - Does that mean that psychotherapy is a placebo?

