Takeaways and thoughts:

OSPs are important! However, it feels like an individual stand to pre-register and be mindful about our own biases. Collectively done -> can make a difference in transparency? Who decides funding decides what research gets published -> the more of the same research is done over and over -> gets selected again. Self-fulfilling prophecy? How can we change this? De-centralise big-shot publishers? (but that's what gives them their credibility no? ahhh)

Issues:

- Without sufficient transparency, we are hindered in our ability to interpret published findings, conclusions based on published literature can be biased or wrong, and meta-analytical syntheses are weakened
- For instance, researchers might conduct multiple alternative forms of an analysis and report only the one with the strongest relationships or lowest *P* values. This practice has become known as *P*-hacking. *P*-hacking and other forms of selective reporting can be masked by hypothesizing after results are known ('HARKing')
- Confirmation Bias: This can play out in various forms of selective reporting as we convince ourselves that we are simply focusing our reporting on the real phenomena. Confirmation bias can thus help to rationalize *P*-hacking and selective reporting, often by preventing us from recognizing our own subtle HARKing. Confirmation bias can also influence data gathering.

Solutions:

- Request or require more-thorough reporting of methods, results, data, or analysis code.
- Preregistration, in which researchers register their study and data analysis plan before collecting data, can greatly improve transparency. It makes unpublished results more discoverable, thus helping to reduce publication bias. Potentially more important, however, preregistration of analysis plans ensures that we can identify genuine *a priori* planned tests, helping to improve confidence in results because they are unlikely to derive from hidden multiple hypothesis testing and selective reporting.
- Replication to assess validity and generality of prior results is a core practice of science. But… Not all studies are of high priority for replication. The more interesting or important a finding, however, the more important it is to replicate that study. Allocating funding to replication would certainly increase its frequency, as would journals adopting policies that explicitly encourage submission of replications