On the Future of Evaluation and BELIV

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http://www.cs.ubc.ca/~tmm/talks.html#beliv16panel
I sense a great disturbance in the Force:

The replication crisis in psychology & its possible repercussions for the future of vis evaluation;

or, What’s making me lose sleep lately
The replication crisis in psychology

• early rumblings left me with (ignorable) qualms
  – papers: Is most published research false?, Storks Deliver Babies (p= 0.008), The Earth is spherical (p < 0.05), False-Positive Psychology

• groundswell of change for what methods are considered legitimate
  – out
    • p-value fishing / data dredging
    • Hypothesizing After Results are Known (HARKing)
  – in
    • replication
    • pre-registration

– brouhaha with bimodal responses
  • some people doubling down and defending previous work
  • many willing to repudiate (their own) earlier styles of working
Remarkable introspection on methods

• thoughtful willingness to change standards of field
  – Andrew Gelman’s commentary on the Susan Fiske article
    • http://andrewgelman.com/2016/09/21/what-has-happened-down-here-is-the-winds-have-changed/
  – Simone Vazier’s entire Sometimes I’m Wrong blog
    • http://sometimesimwrong.typepad.com/
    • especially posts on topic Scientific Integrity
  – Joe Simmons Data Colada blog post What I Want Our Field to Prioritize
    • http://datacolada.org/53/
  – Dana Carvey’s brave statement on her previous power pose work
    • http://faculty.haas.berkeley.edu/dana_carney/pdf_My%20position%20on%20power%20poses.pdf
When and how will this storm hit us?

• they’re ahead of us
  – they have some paper retractions
    • we don’t (yet) have any retractions for methodological considerations
  – they agonize about difficulty of getting failure-to-replicate papers accepted
    • we hardly ever even try to do such work
  – they are a much older field
    • we’re younger: might our power hierarchies thus be less entrenched??…
  – they are higher profile
    • we don’t have vis research results appear regularly in major newspapers/magazines
  – they have rich fabric of blogs as major drivers of discussion
    • crosscutting traditional power hierarchies
    • we have far fewer active bloggers
Terrain of blog critiques

• meta: methods for methodological critique
  – Uri Simonsohn DataColada post on civility
    • [http://datacolada.org/52](http://datacolada.org/52)
    • don’t label, describe
    • don’t infer motives
    • reach out: contacting authors whose work you discuss before making things public
      – as a heuristic check on tone, imagine going to dinner with authors and their parents that night

• resonates with my own first foray into blog critique
  • [https://tamaramunzner.wordpress.com/2016/01/16/on-the-memorability-debate/](https://tamaramunzner.wordpress.com/2016/01/16/on-the-memorability-debate/)
  – tone check advice is spot on
    • I *did* go out to dinner with Stephen Few the night I wrote my blog posts!
      – leading me to pick my tone with suitable care
    – I did not reach out, but now I think it would be wise indeed
Is BELIV still needed?

• yes yes yes! so much to think about!

• progression / cycle
  – no evaluation
  – first wave of quantitative evaluation
  – second wave of qualitative evaluation
  – now: third wave revisiting quantitative evaluation??