

Organising Critique

Dr. Ian Hussey

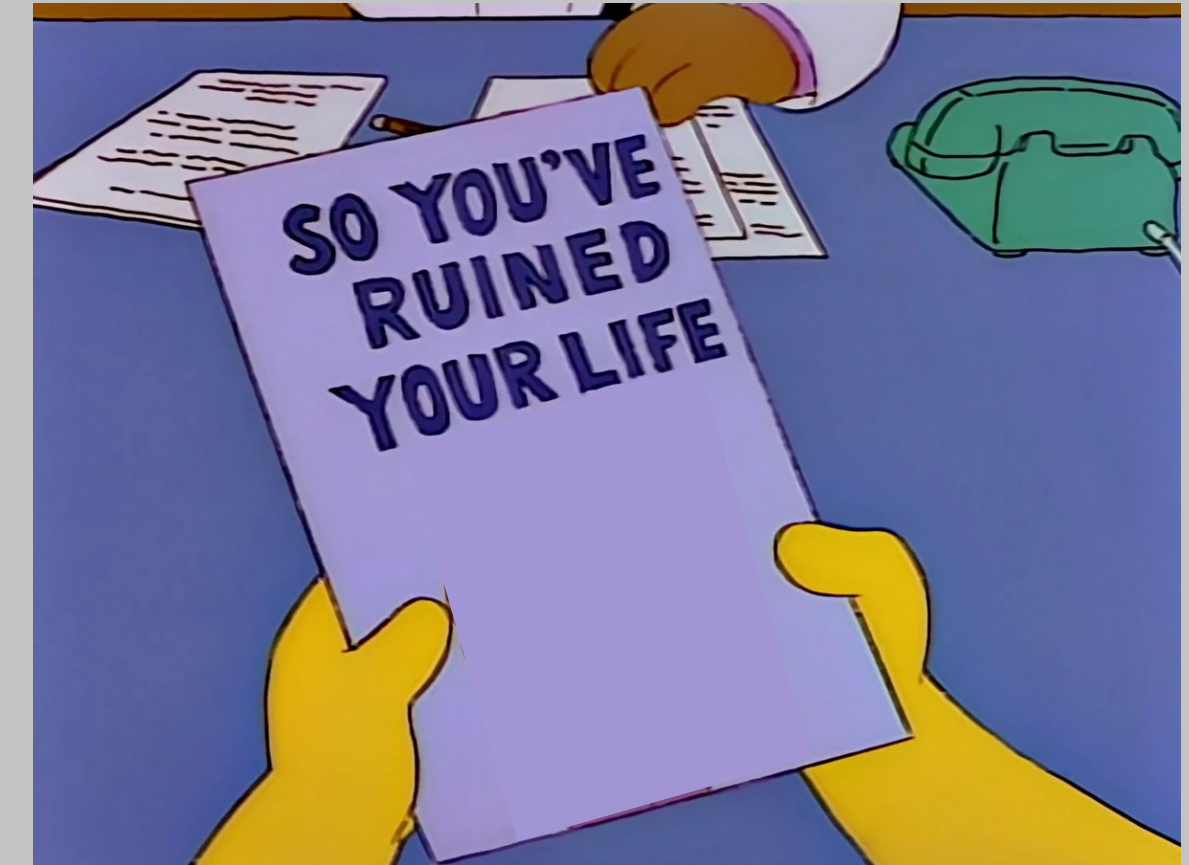
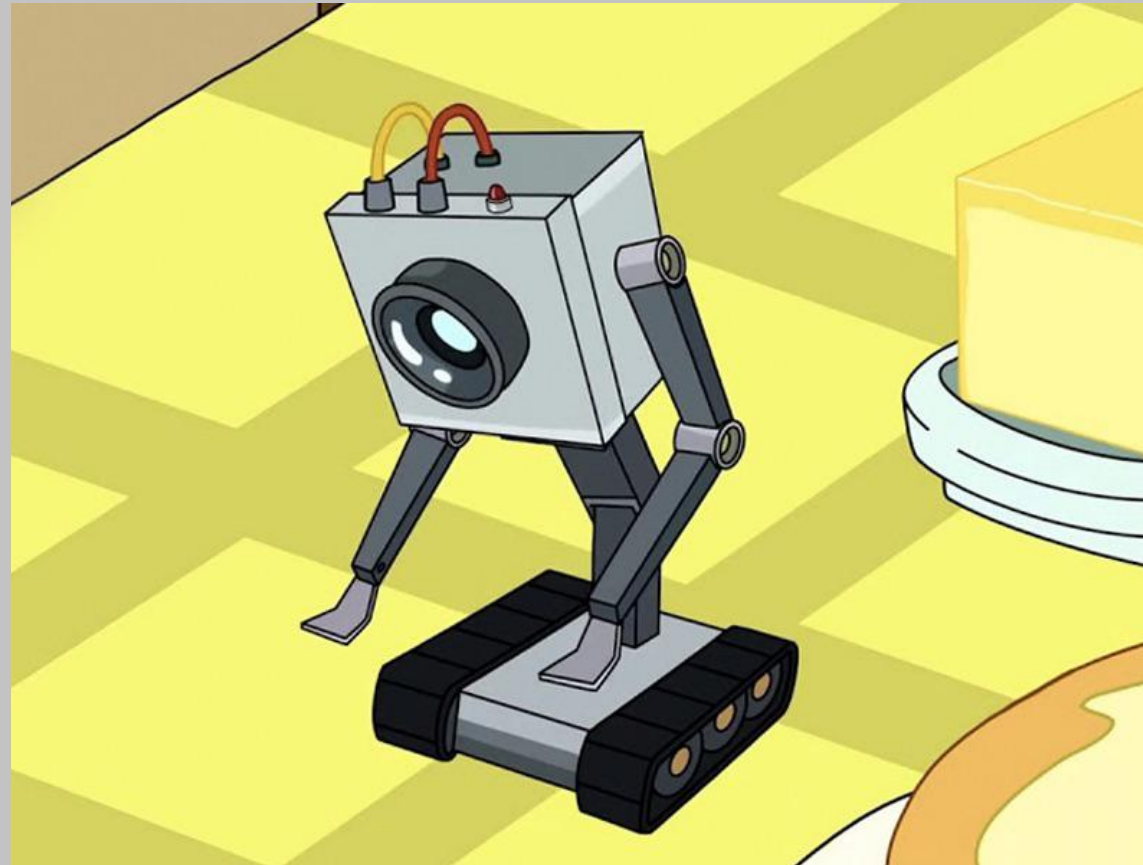
Digitalisation of Psychology

What is a good critique?

What makes a criticism important
is how much it could change a result if corrected
and how much that would then change our decisions or actions:
to what extent it is a “difference which makes a difference”.

Was eine Kritik wichtig macht, ist,
wie sehr sie ein Ergebnis verändern könnte, wenn sie korrigiert würde
und wie sehr das dann unsere
Entscheidungen oder Handlungen verändern würde:
inwieweit es ein „Unterschied ist, der einen Unterschied macht“.

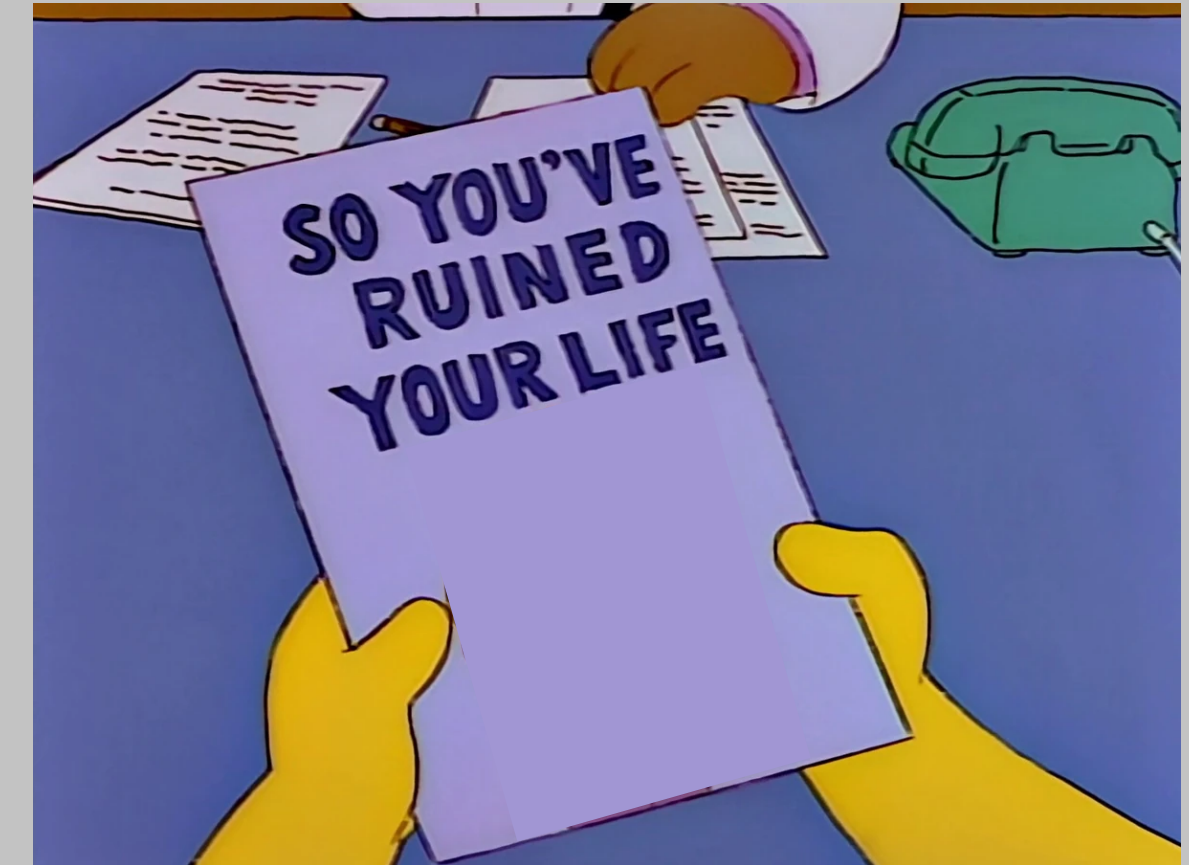
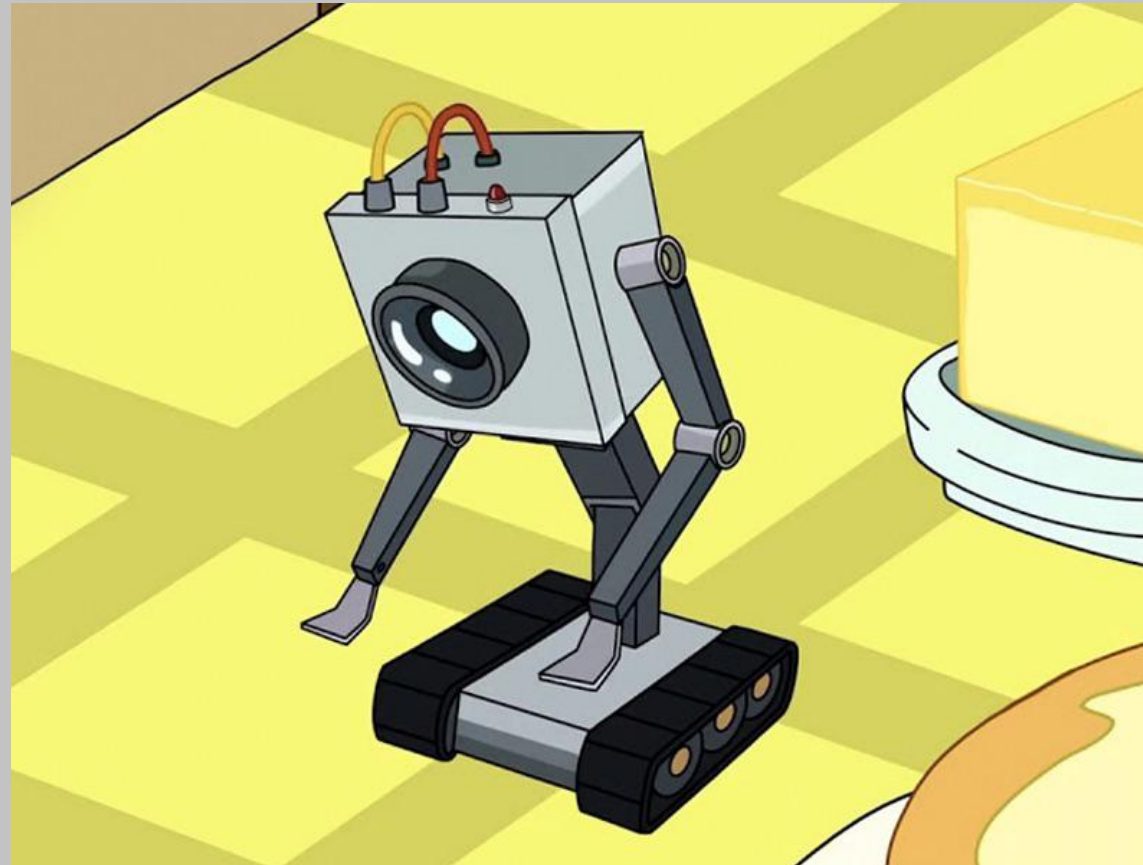
Critique spectrum



Ineffective

Damaging for you

Critique spectrum



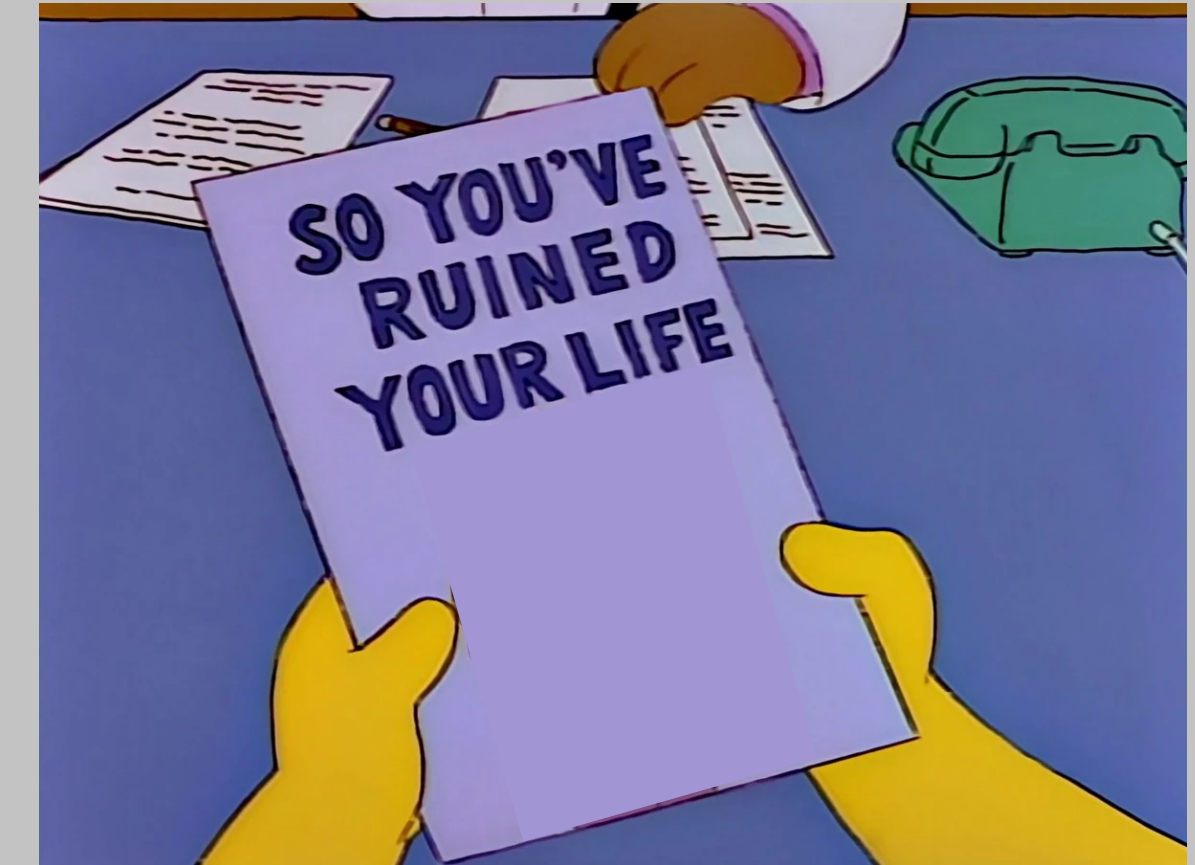
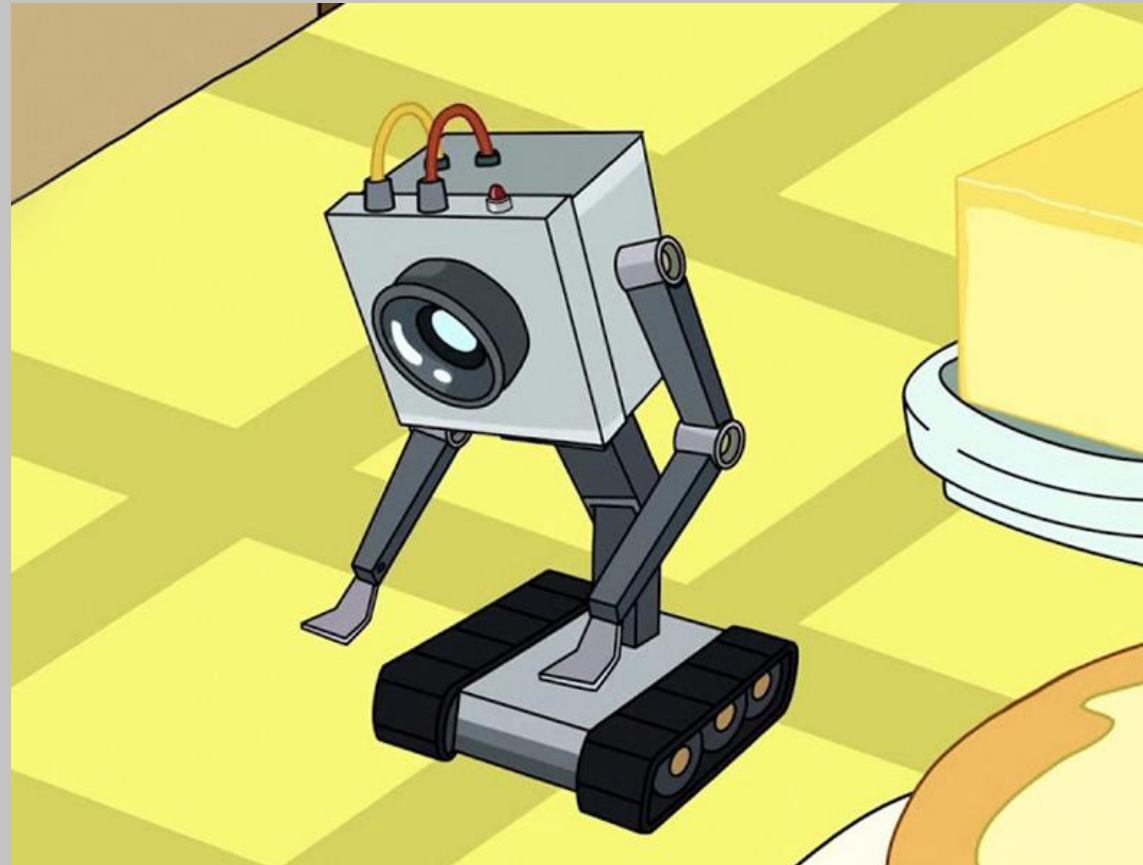
Ineffective

Career
Mental health

Damaging for you

Career
Get sued
Mental health

Critique spectrum



Ineffective

Career
Mental health

Effective

Improve science
Get tenure

Damaging for you

Career
Get sued
Mental health



**EMOTIONAL
DAMAGE!**

**“Methodological
terrorists”**

“Shameless little bullies”

“Data parasites”

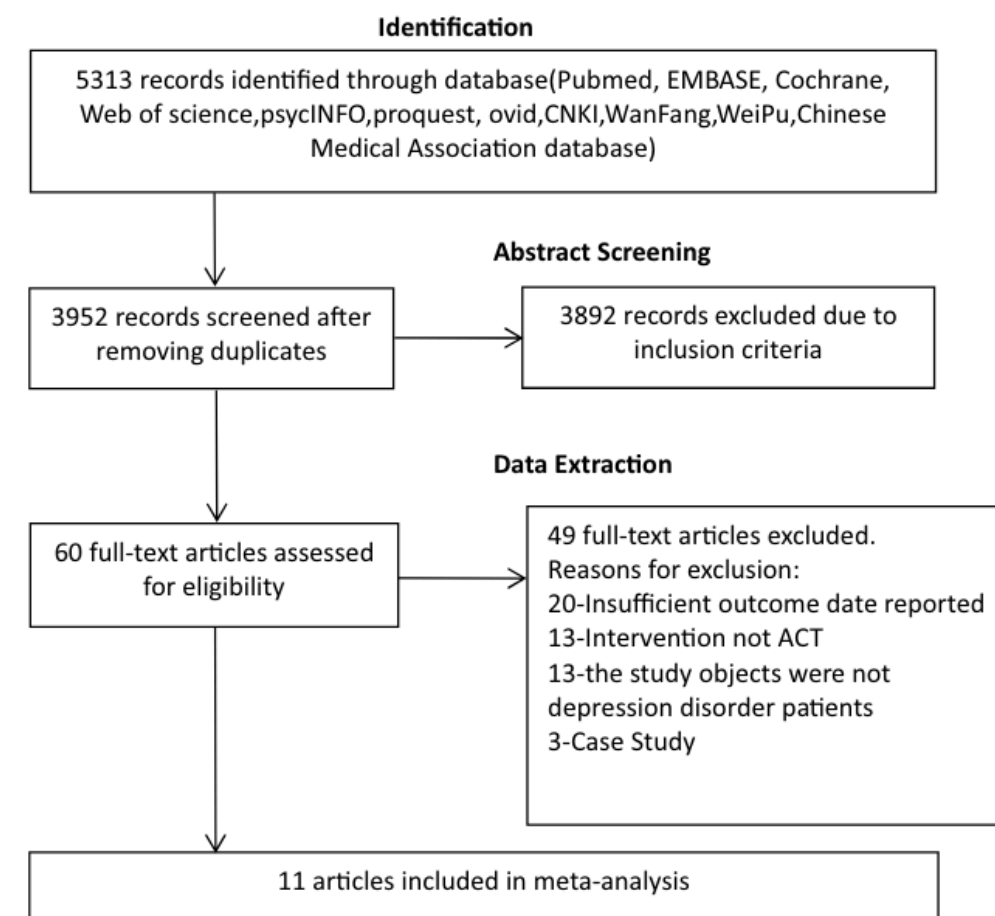
“Second stringers”

Lacking “research flair”

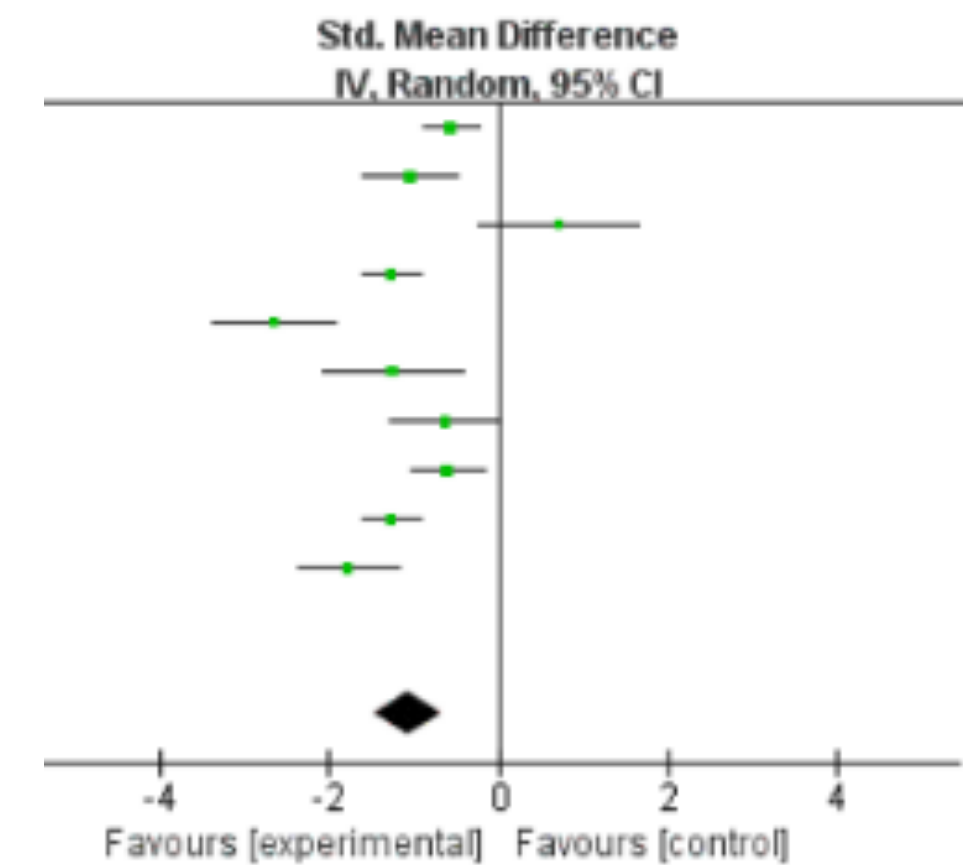
Mind your own business

etc.

Organising critique in Systematic Reviews & Meta-Analyses

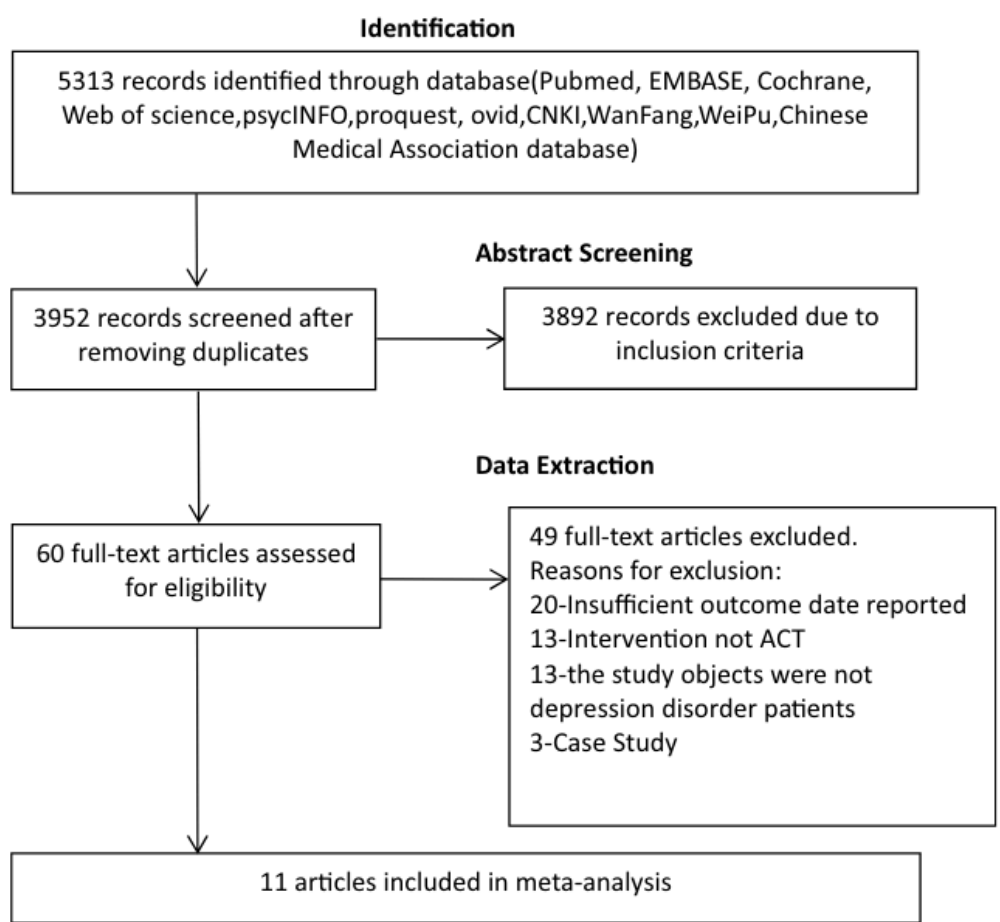


Search



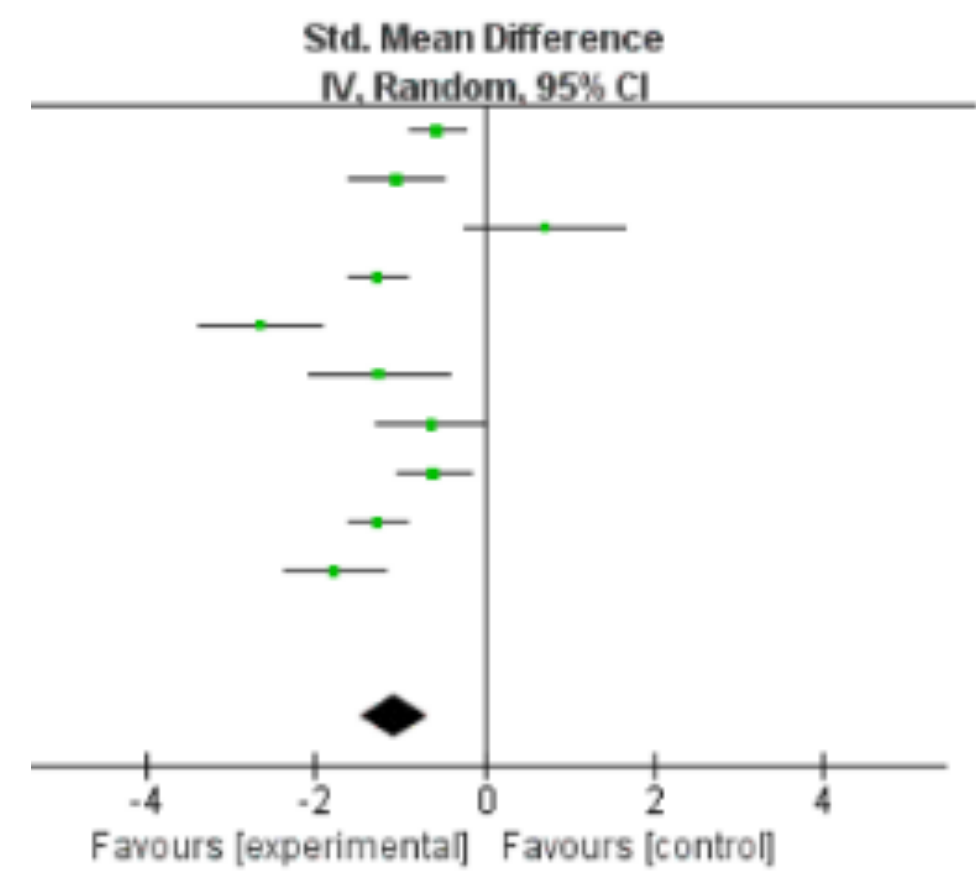
Synthesis/
meta-analysis

Systematic Reviews & Meta-Analyses



	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias	
A-Tjak 2018	+	+	-	+	+	+	?	
Chen Juan 2021	+	+	-	+	+	?	?	
Chunxiao Zhao2022	+	+	?	+	+	+	?	
Ernst T.Bohlmeijer2011	+	+	-	+	+	+	?	
Lappalainen 2015	+	+	?	+	+	+	?	
Louise Hayes 2011	+	?	-	+	?	+	?	
Mehdi Zemestani 2020	+	+	-	+	+	?	?	
Ren Zhihong 2012	+	+	?	+	+	+	?	
Shima Tamannaei Far 2017	+	?	-	+	+	+	?	
Situ Yuyi 2022	+	+	-	+	+	+	?	
Wendy T.M.Pots 2016	+	+	?	+	+	+	?	

Legend:
- High risk of bias (Red)
- Unclear risk of bias (Yellow)
- Low risk of bias (Green)

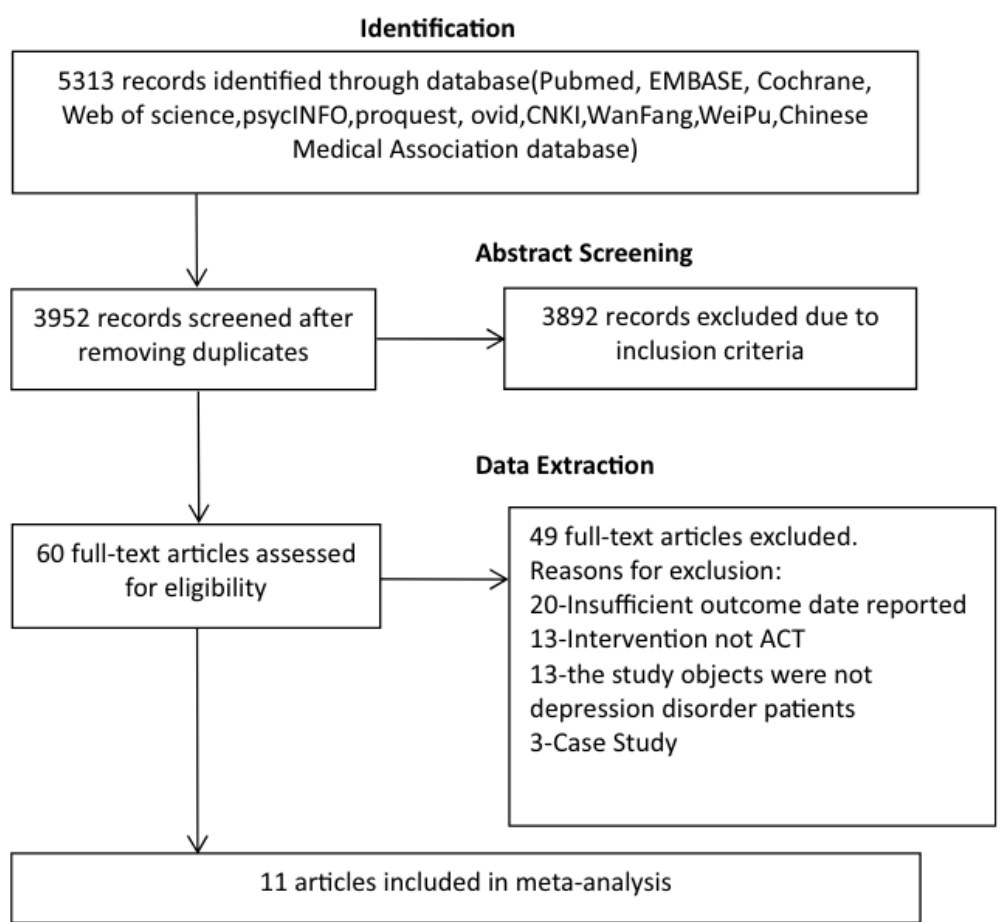


Search

Risk of bias assessment

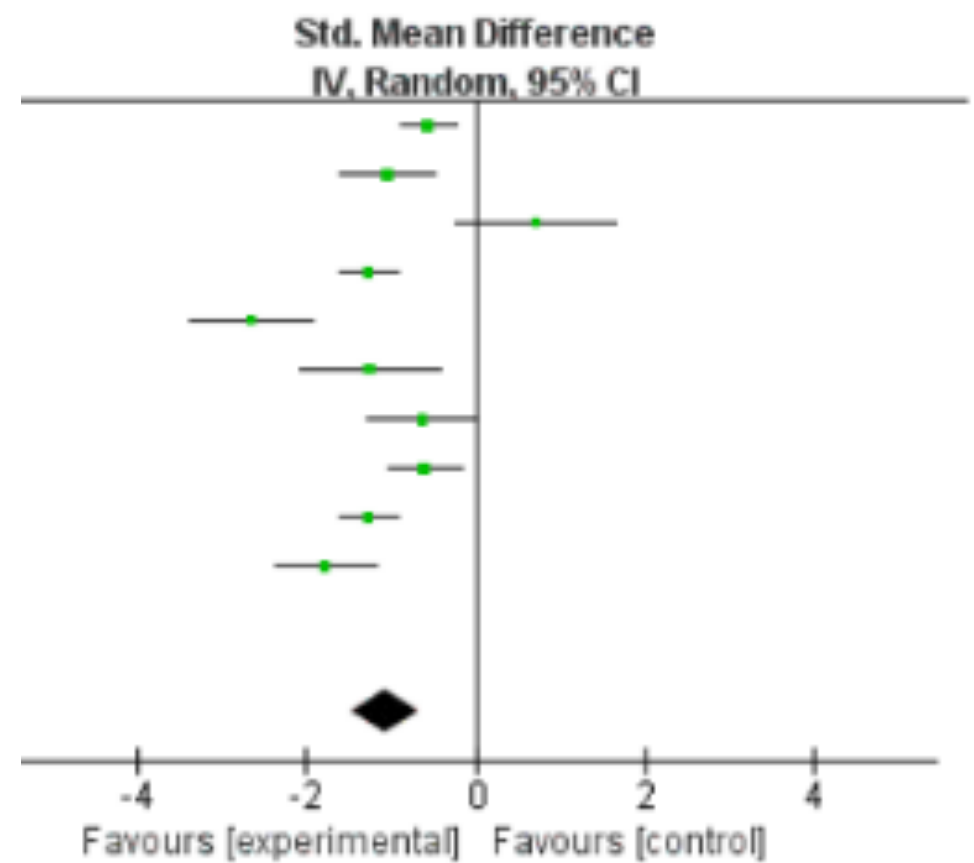
Synthesis/
meta-analysis

Systematic Reviews & Meta-Analyses



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Chen Juan 2021	Low risk of bias	Low risk of bias	High risk of bias	Low risk of bias	Low risk of bias	Unclear risk of bias	Unclear risk of bias
Chunxiao Zhao2022	Low risk of bias	Low risk of bias	Unclear risk of bias	Low risk of bias	Low risk of bias	Unclear risk of bias	Unclear risk of bias
Ernst T.Bohmeijer2011	Low risk of bias	Low risk of bias	High risk of bias	Low risk of bias	Low risk of bias	Unclear risk of bias	Unclear risk of bias
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Ren Zhihong 2012	Low risk of bias	Low risk of bias	Unclear risk of bias	Low risk of bias	Low risk of bias	Unclear risk of bias	Unclear risk of bias
Shima Tamannaeei Far 2017	Low risk of bias	Unclear risk of bias	High risk of bias	Low risk of bias	Low risk of bias	Unclear risk of bias	Unclear risk of bias
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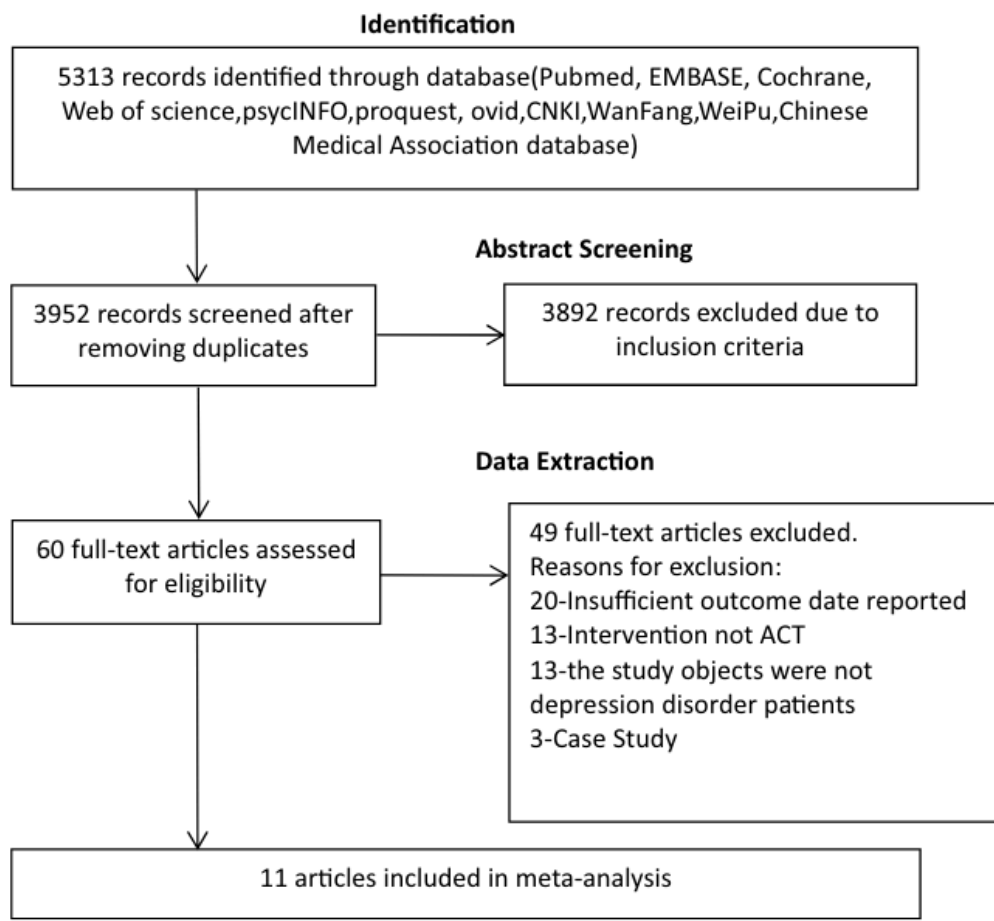
Risk of bias assessment



Search

Synthesis/
meta-analysis

Systematic Reviews & Meta-Analyses



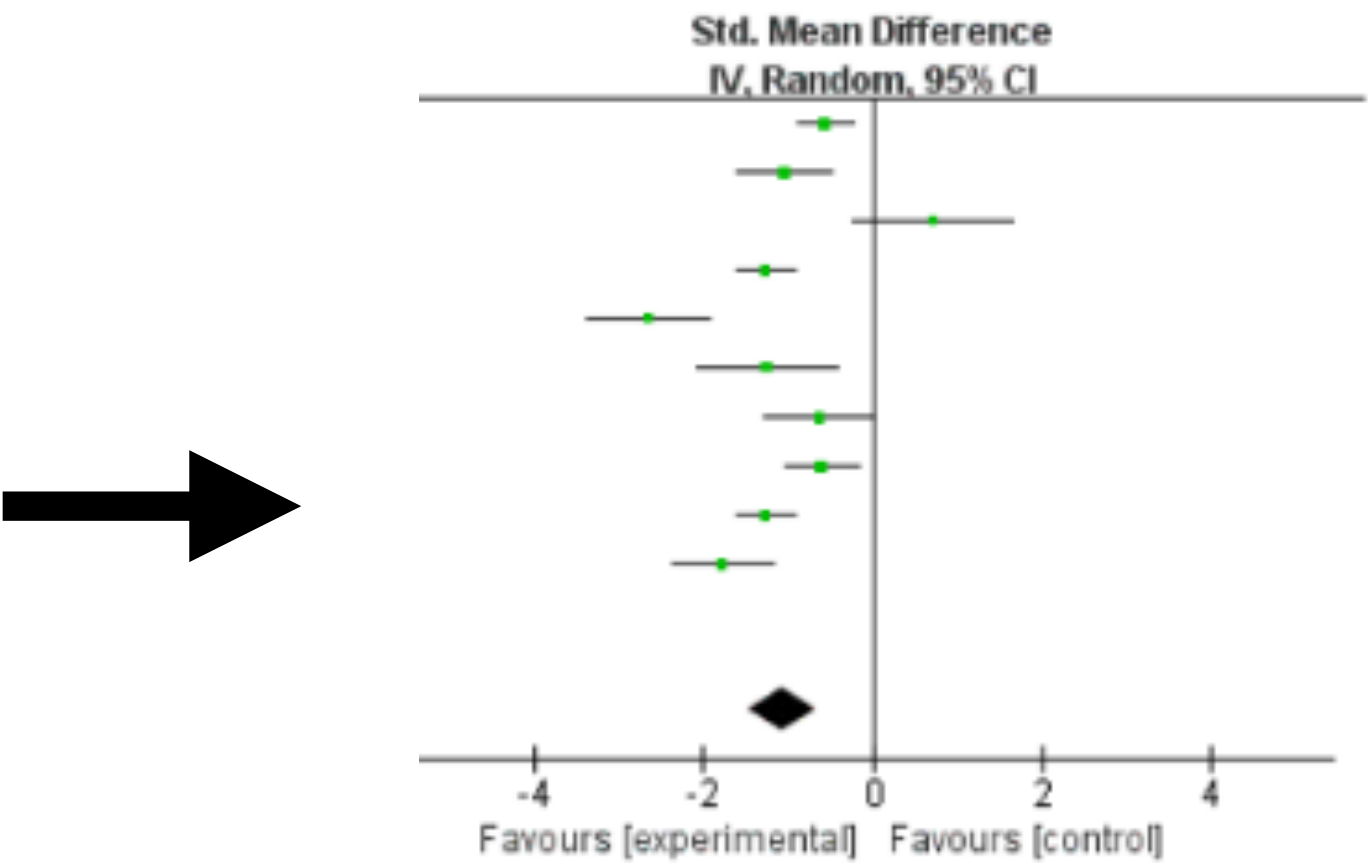
Search



Trustworthiness
assessment

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
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Risk of bias
assessment



Synthesis/
meta-analysis

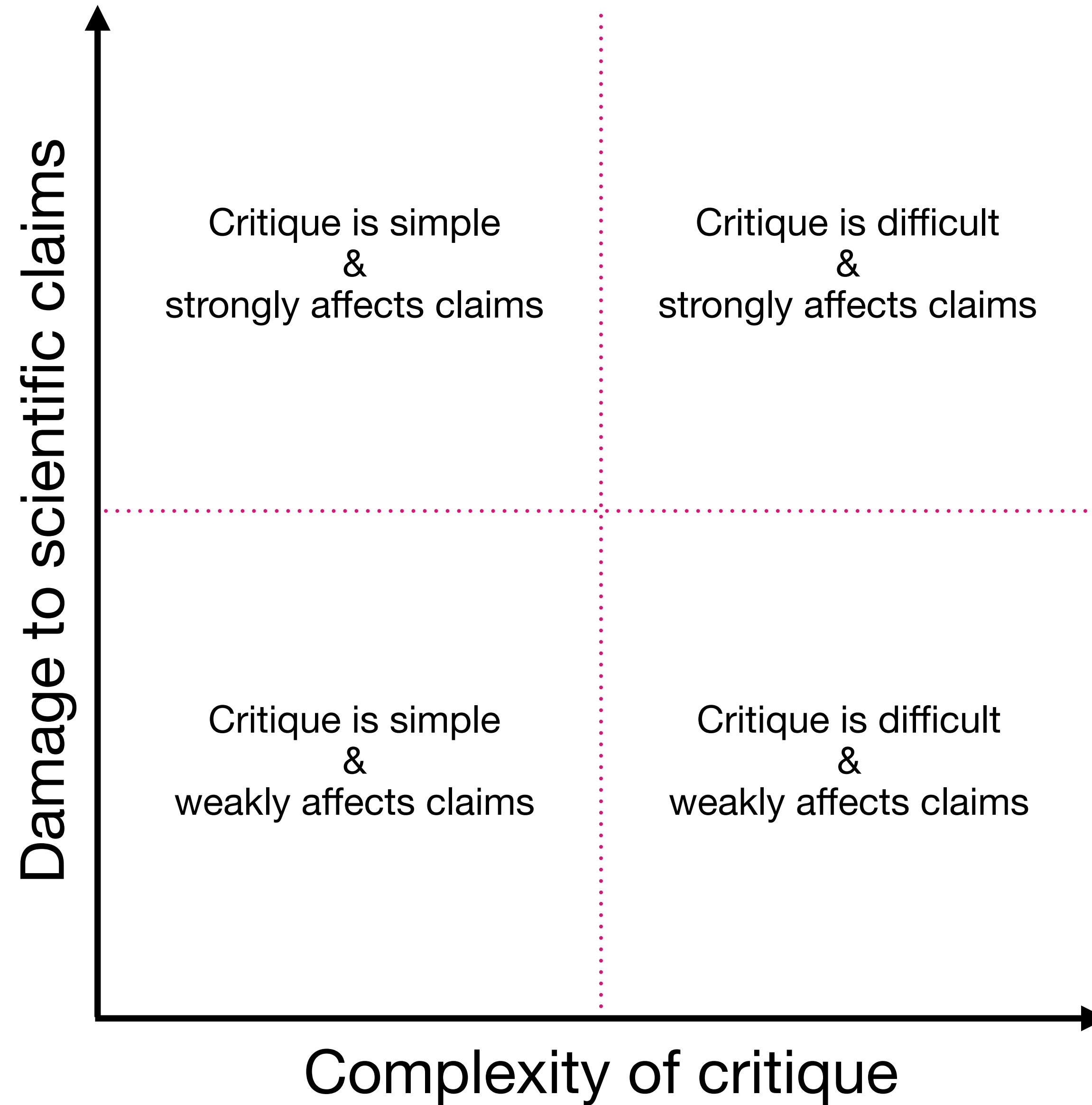
Trustworthiness Assessment Tools

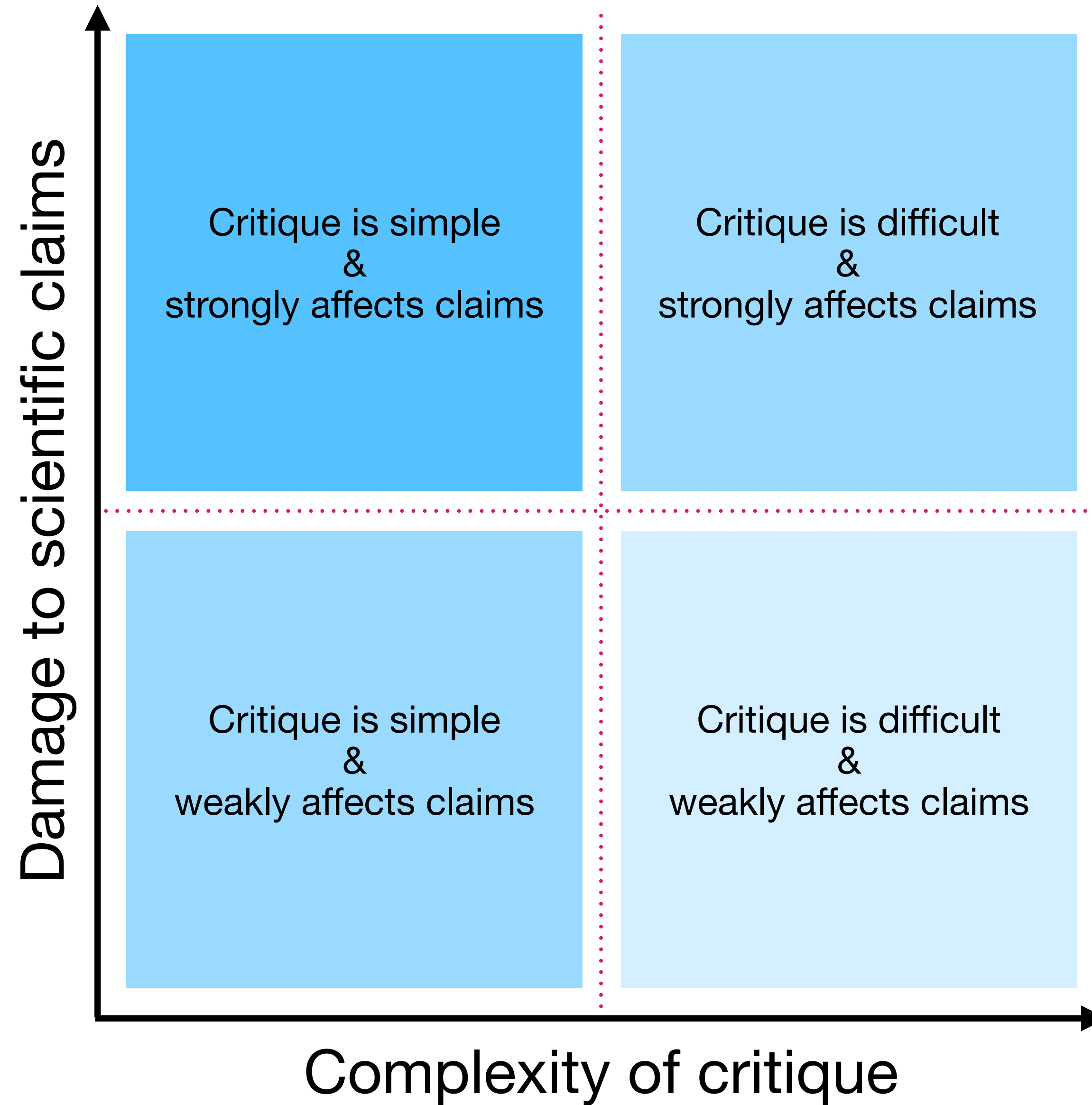
INSPECT-SR

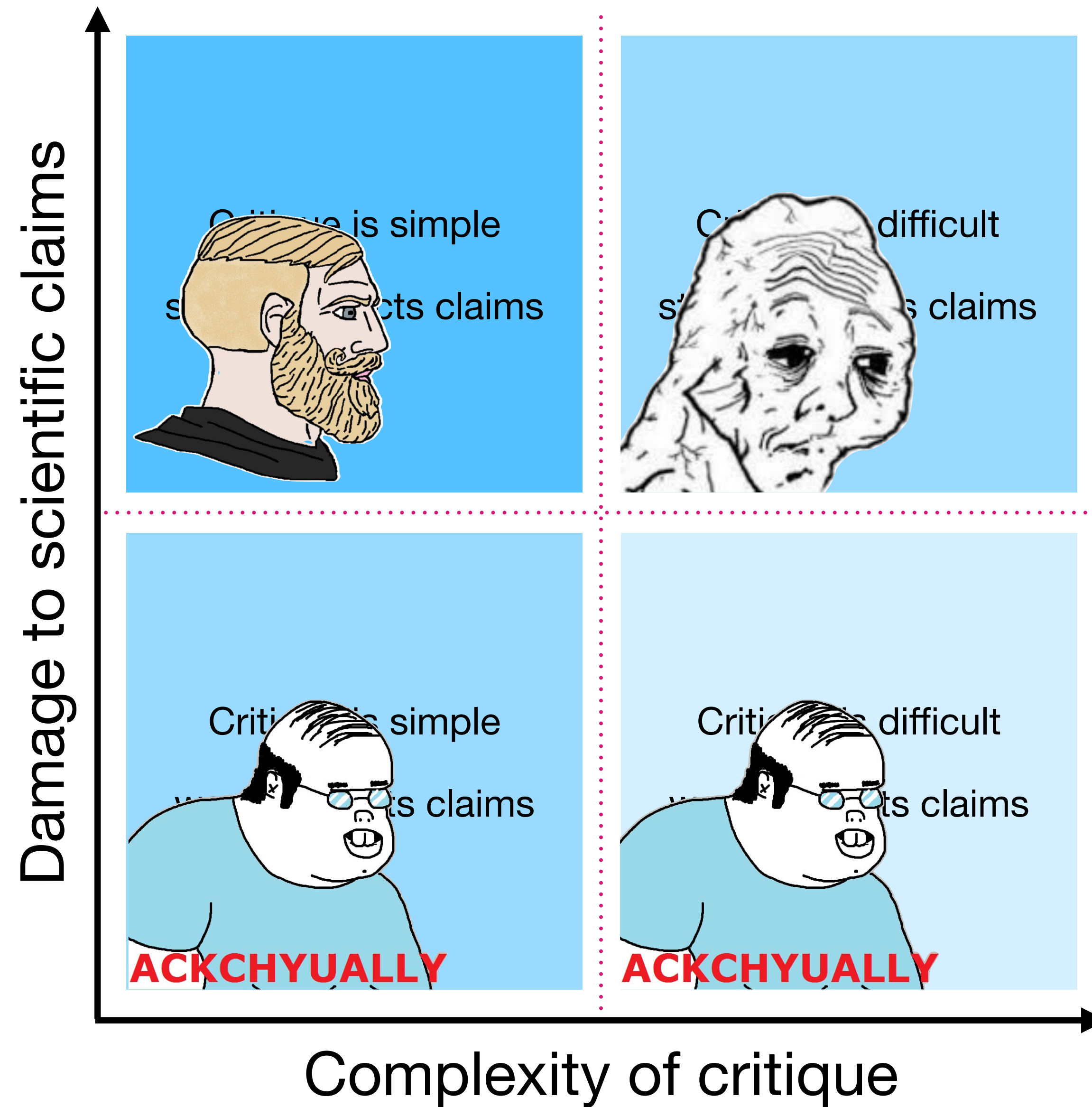
Wilkinson et al. (2024)

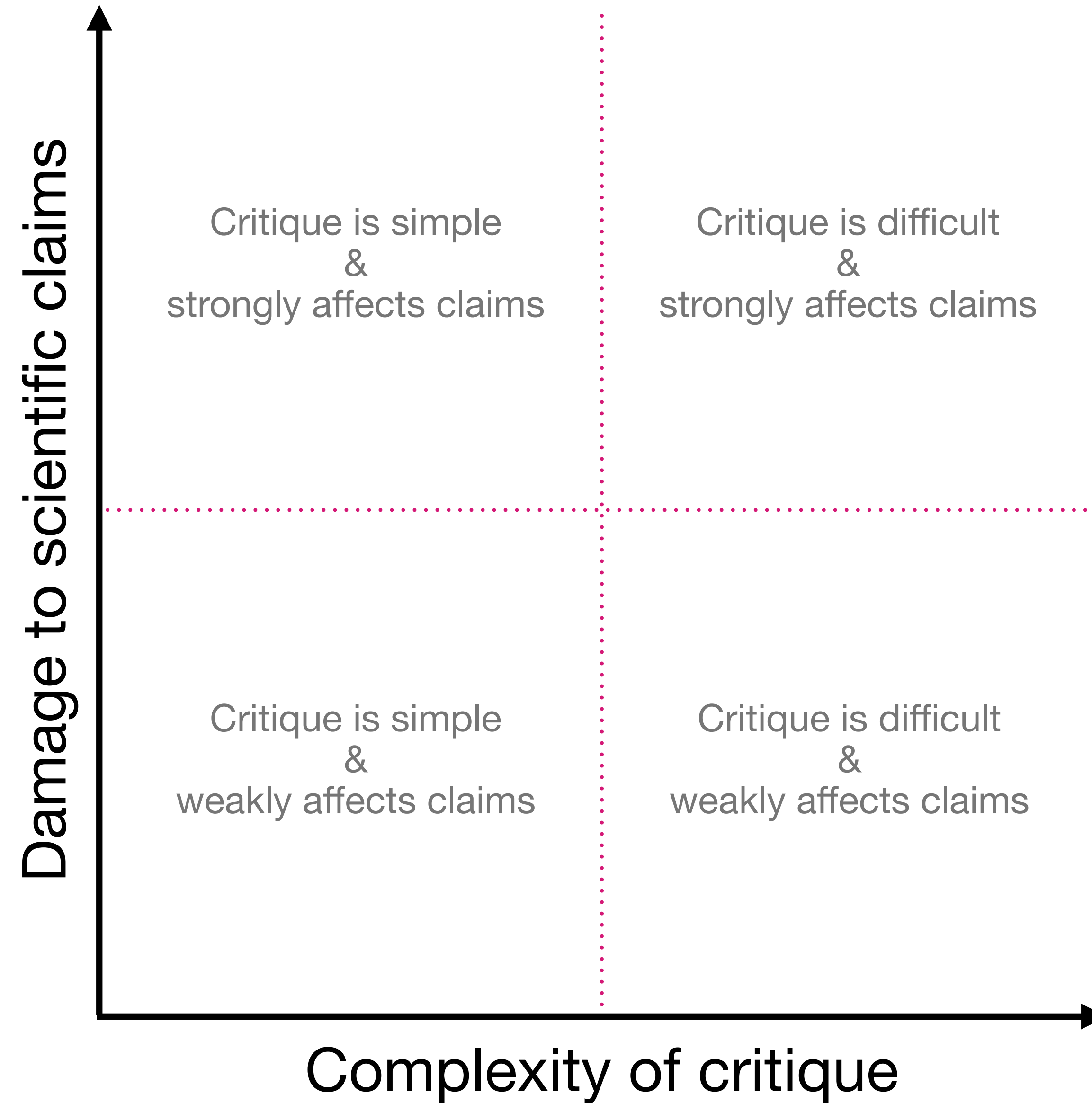
Which relate to
this course?

Post publication notices	Retraction, expression of concern, correction, pubpeer comment Authors' articles elsewhere
Conduct, governance, transparency	Timing or absence of preregistration Undisclosed deviations from preregistration Ethical approval Implausible recruitment or follow-up Implausible methods or resources
Text and figures	Text that does not correspond to study? (e.g., tortured phrases, non-sequiturs) Image manipulation
Results	Implausible numbers (patterns, repetition, etc) Sample size inconsistencies Results disagree between figures, tables and within text Implausible results (magnitude, frequency, variance) Impossible results (mean, SDs, variances, range, estimates outside intervals, inconsistencies in [re]calculated statistics) Errors in analyses Other contradictions









StatCheck

+ INSPECT-SR items

Measurement changes over time

Demand characteristics

Measurement validity

Misalignment of hypothesis-
analysis-claim

Complaining about
NHST

Strategic ambiguity /
theory underspecification

Computational reproducibility

Explanans/
explanandum

p-hacking

Effect size
plausibility

Tortured phrases

GRIM/MER

TIDES

Small amounts of
missing data

Undisclosed deviations from
preregistration

Assumption tests

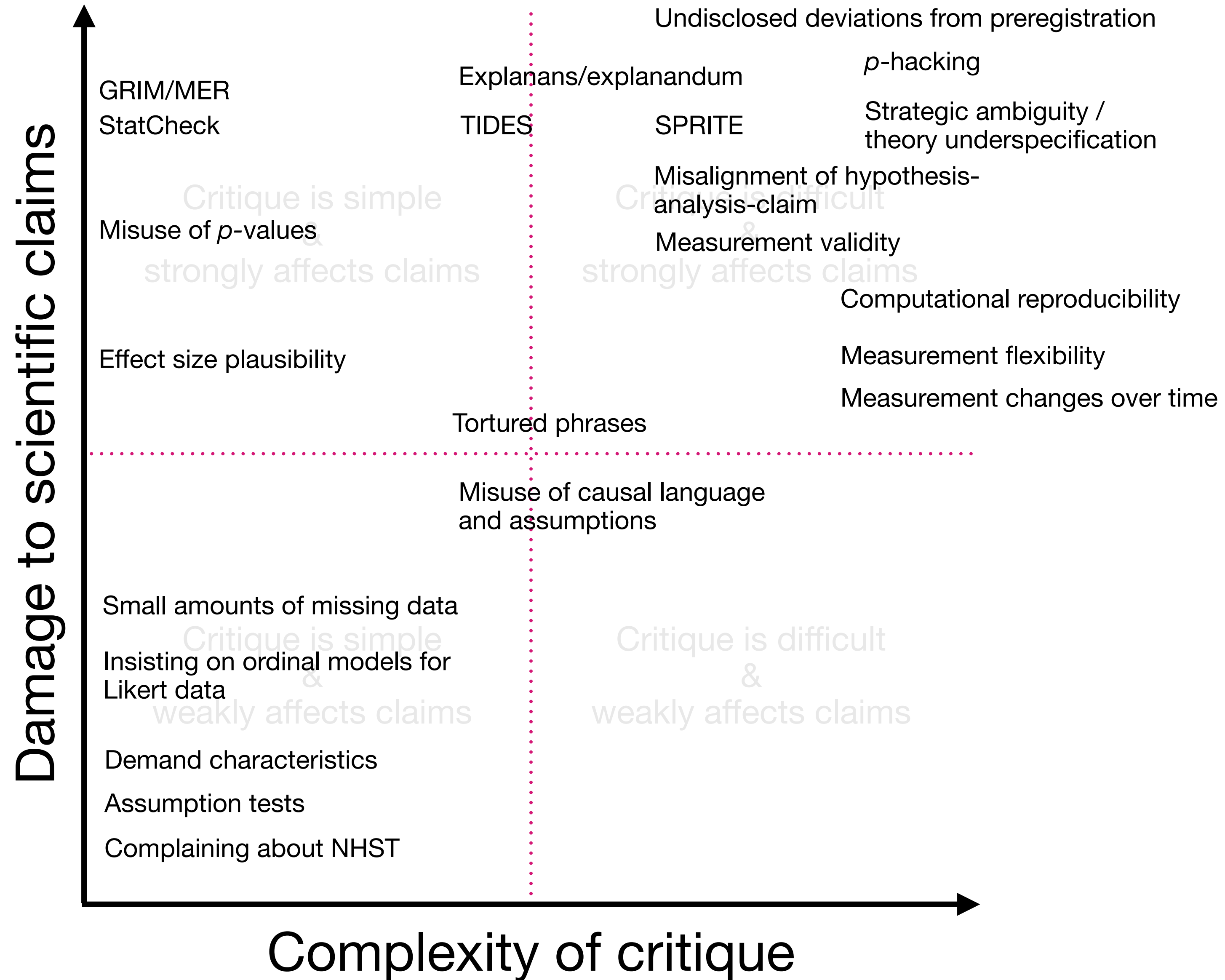
Insisting on ordinal
models for Likert data

SPRITE

Misuse of *p*-values

Measurement
flexibility

Misuse of causal
language and
assumptions



A good critique is efficient

Questions?