Invisibilité dans les données des questions de santé mentale chez l'enfant

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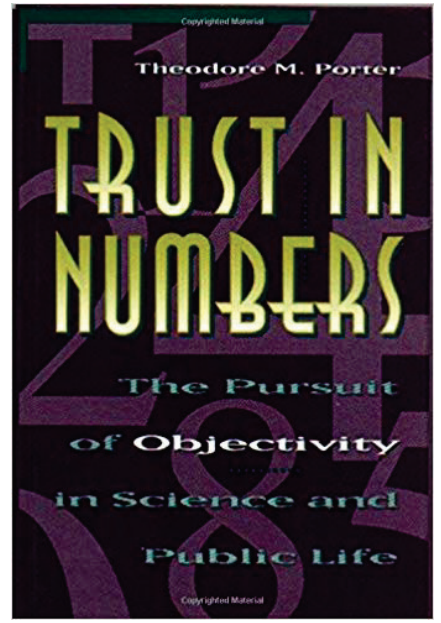
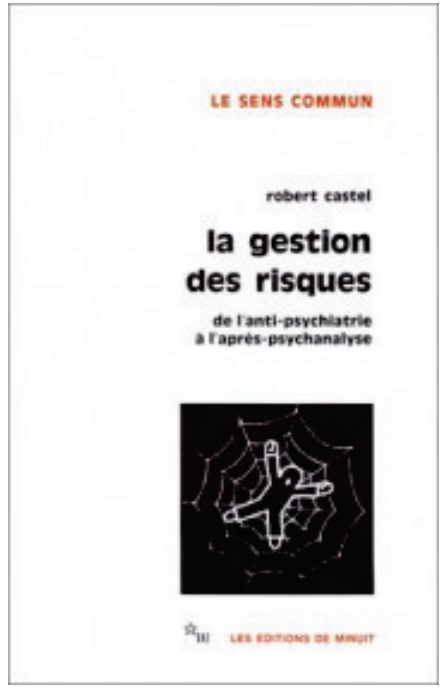
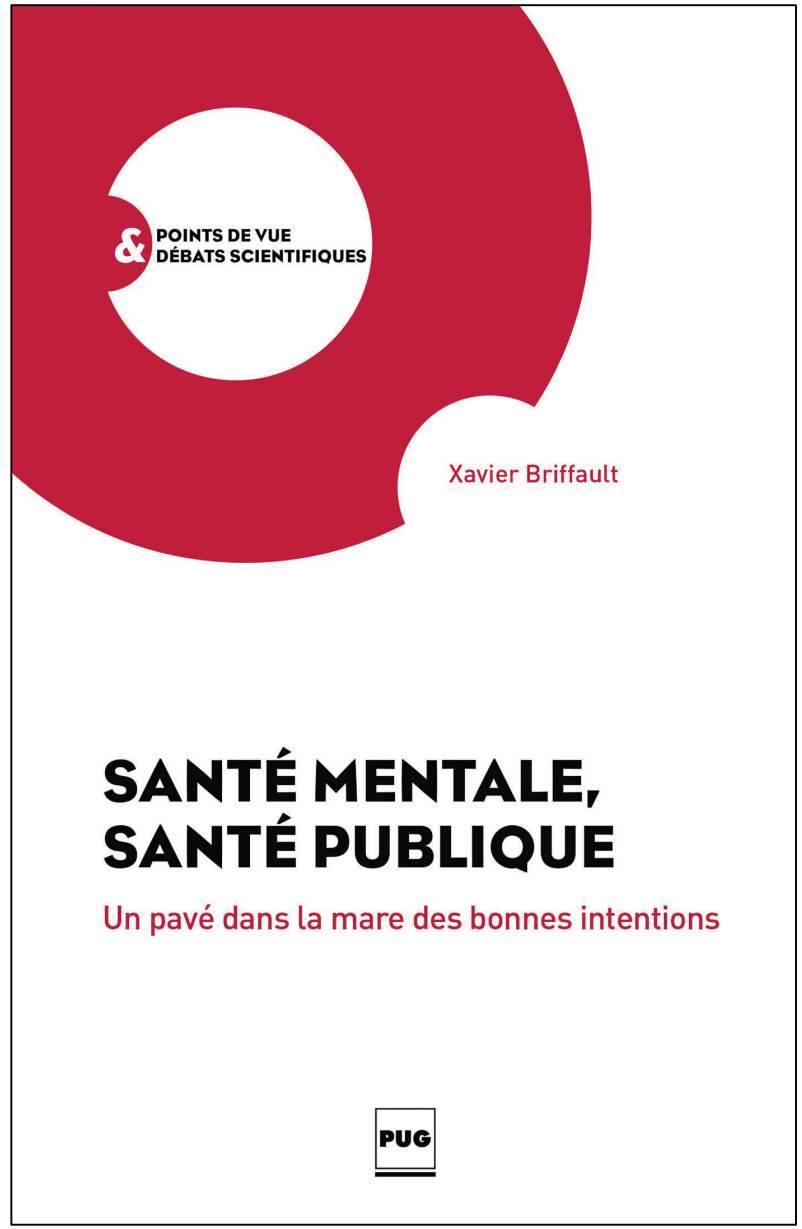
A quoi servent les données ?

- A produire de la connaissance
- **A gouverner**






& POINTS DE VUE
DÉBATS SCIENTIFIQUES
Xavier Briffault
SANTÉ MENTALE,
SANTÉ PUBLIQUE
Un pavé dans la mare des bonnes intentions
PUG

Invisibilisation par les données des questions de santé mentale [chez l'enfant]

Quels risques pour la santé des enfants ?

Une méta-analyse remarquable

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Risk Factors for Suicidal Thoughts and Behaviors: A Meta-Analysis of 50 Years of Research

Joseph C. Franklin and Jessica D. Ribeiro
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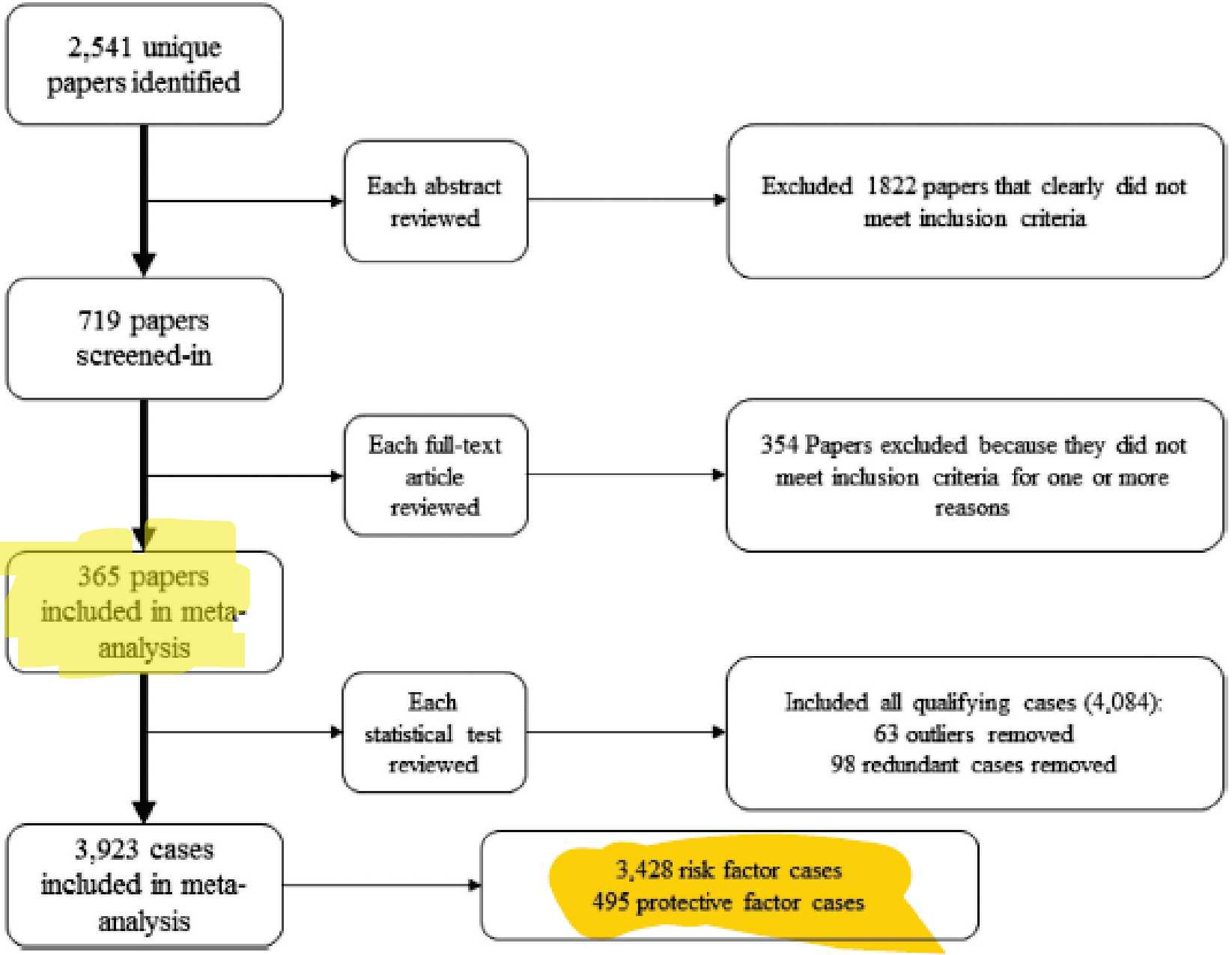

2,541 unique papers identified
Each abstract reviewed
Excluded 1822 papers that clearly did not meet inclusion criteria
719 papers screened-in
Each full-text article reviewed
354 Papers excluded because they did not meet inclusion criteria for one or more reasons
365 papers included in meta-analysis
Each statistical test reviewed
Included all qualifying cases (4,084):
63 outliers removed
98 redundant cases removed
3,923 cases included in meta-analysis
3,428 risk factor cases
495 protective factor cases

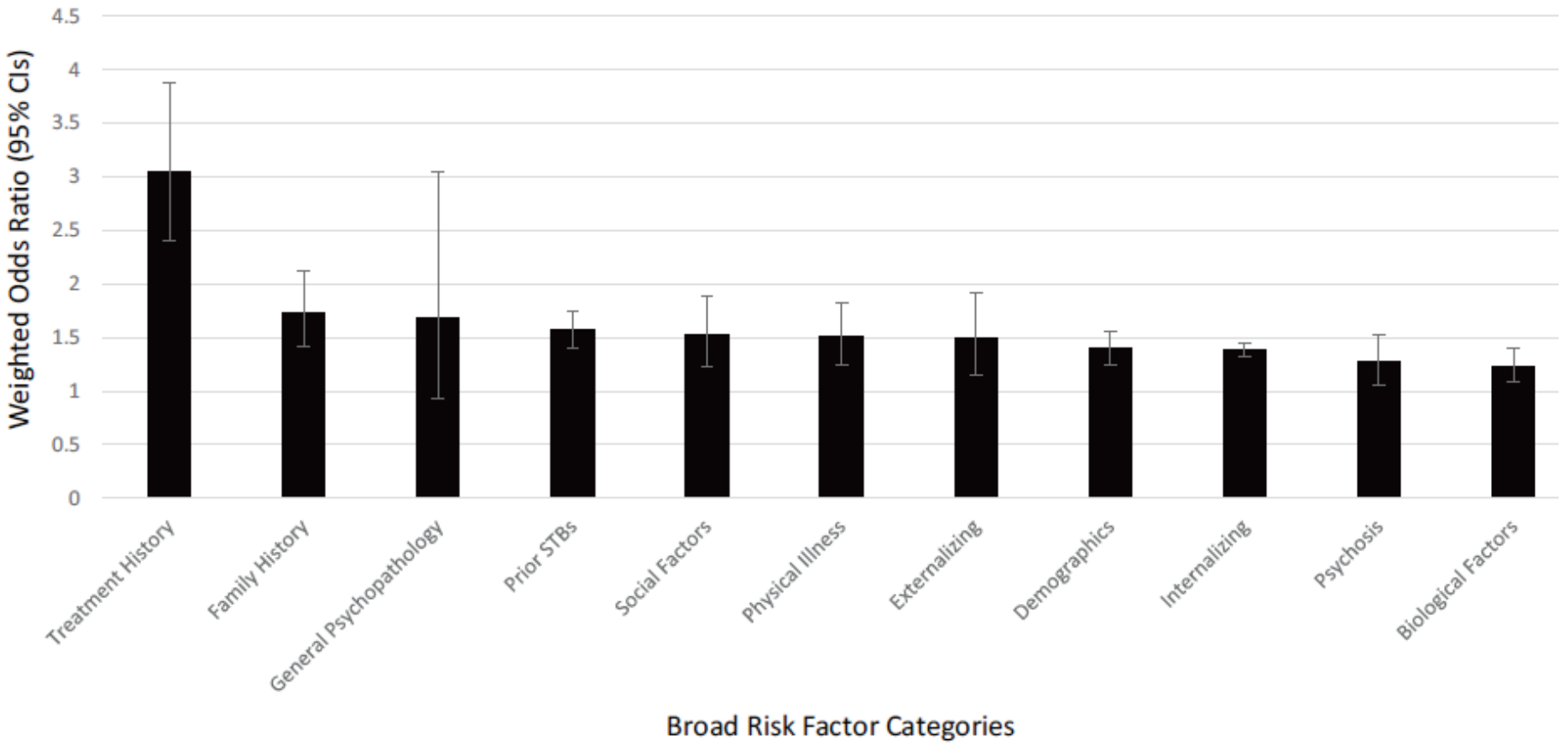
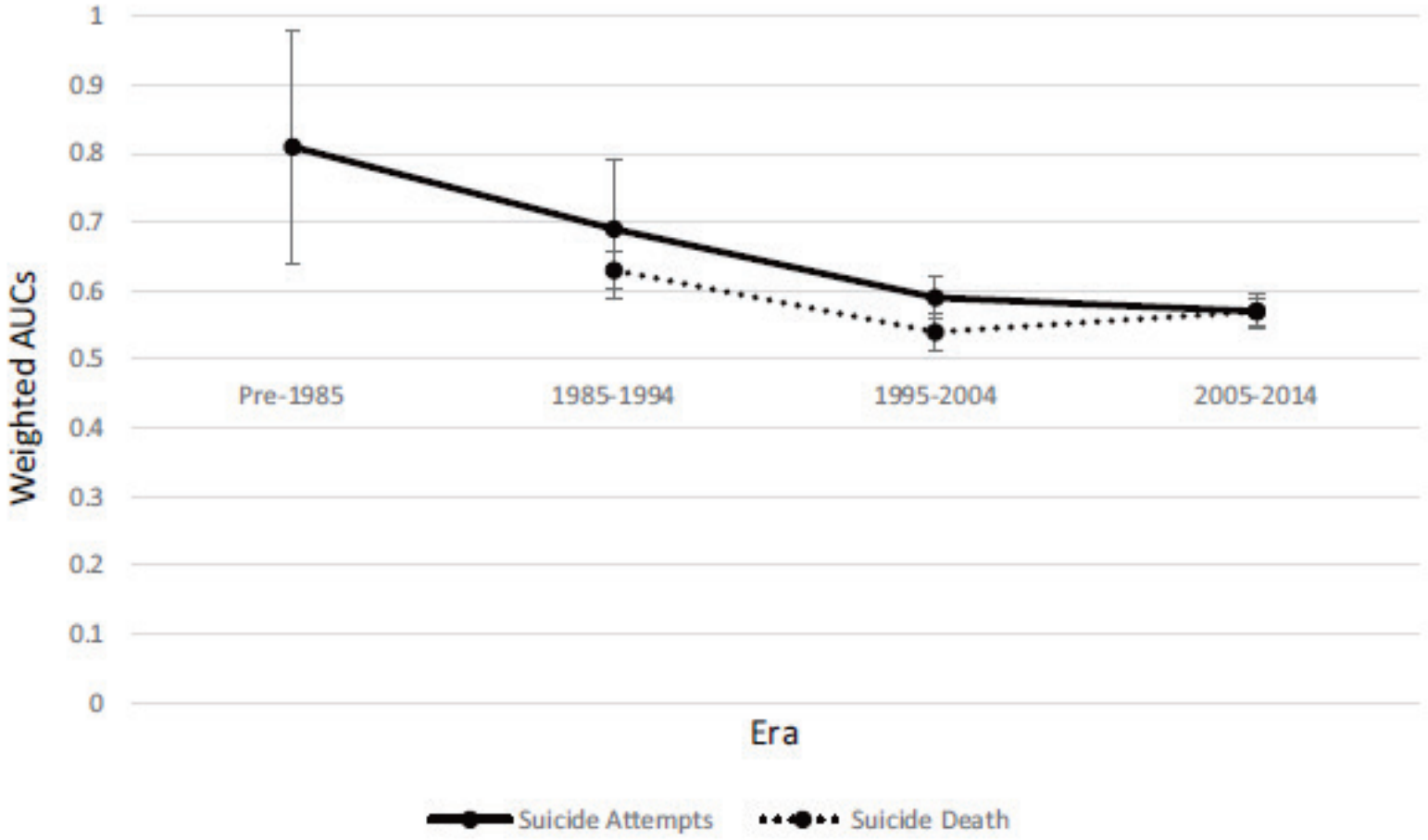


Figure 13. Weighted odds ratios by broad risk factor categories for suicide death outcome effect sizes. Error

	Top 5 suicide attempt subcategories			
1	Prior NSSI	4.15	(2.89, 6.92)	8
2	Prior suicide attempt	3.41	(2.71, 4.30)	42
3	Screening instrument	2.51	(1.82, 4.36)	10
4	Axis II diagnosis (any kind)	2.35	(1.88, 2.93)	40
5	Prior psychiatric hospitalization	2.32	(1.58, 3.39)	14
	Overall wOR (all effect sizes)	*1.51*	*(1.49, 1.54)*	*1281*
	Top 5 suicide death subcategories			
1	Prior psychiatric hospitalization	3.57	(2.81, 4.53)	31
2	Prior suicide attempt	2.24	(1.69, 2.97)	19
3	Prior suicide ideation	2.22	(1.45, 3.41)	10
4	Socioeconomic status (lower)	2.20	(1.32, 3.67)	10
5	Stressful life events	2.18	(1.63, 2.93)	23
	Overall wOR (all effect sizes)	*1.50*	*(1.46, 1.56)*	*912*

Taken together, these findings indicate that, *at least within the narrow methodological limits of the existing literature*, there is no evidence that any known risk factors—broad or specific—approach what many might define as clinical significance.

Pas mieux que la prédiction au hasard



It follows that this meta-analysis also cannot directly inform STB treatment and prevention efforts. Because the meta-analytic data could not winnow theories or risk factors, it cannot provide much useful information about treatment and prevention targets. The limited ability of this meta-analysis to inform suicide theory, prediction, and treatment emanates from one major source: the methodological limitations of the existing literature. This meta-analysis accordingly represents a clarion call to researchers to modify their methods in a way that allows STB risk factor research to have greater implications for suicide theory, prediction, and treatment.

the STB risk factor literature has not become increasingly diverse, followed novel theoretical directions, or systematically built on or innovated beyond earlier work. Rather, the set of risk factors from pre-1985 studies is virtually indistinguishable from the set of risk factors from 2014 studies, indicating that the field developed a narrow set of potential risk factors early on and stuck to them. There were, of course, some exceptions to this rule, but these have represented a small minority of effect sizes. By and large, the STB risk factor field appears to have conducted essentially the same studies over and over again throughout the last 50 years. In light of this pattern, it is not surprising that predictive ability has remained nearly constant over the last 50 years. Similarly, in light of these two patterns, it should not be surprising that STB rates have also remained nearly constant over the last 50 years.

PLOS | MEDICINE

ESSAY

Why Most Clinical Research Is Not Useful

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Summary Points

- Blue-sky research cannot be easily judged on the basis of practical impact, but clinical research is different and should be useful. It should make a difference for health and disease outcomes or should be undertaken with that as a realistic prospect.
- Many of the features that make clinical research useful can be identified, including those relating to problem base, context placement, information gain, pragmatism, patient centeredness, value for money, feasibility, and transparency.
- Many studies, even in the major general medical journals, do not satisfy these features, and very few studies satisfy most or all of them. Most clinical research therefore fails to be useful not because of its findings but because of its design.
- The forces driving the production and dissemination of nonuseful clinical research are largely identifiable and modifiable.
- Reform is needed. Altering our approach could easily produce more clinical research that is useful, at the same or even at a massively reduced cost.

Fichier Édition Affichage Historique Marque-pages Outils ?

John P.A. Ioannidis - Citations

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SUIVRE

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meta-research clinical epidemiology evidence-based medicine research methods meta-analysis

TITRE	CITÉE PAR	ANNÉE
Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement D Moher, A Liberati, J Tetzlaff, DG Altman, C Mulrow, PC Gøtzsche, ... PLoS medicine 6 (7), e1000097	43486	2009
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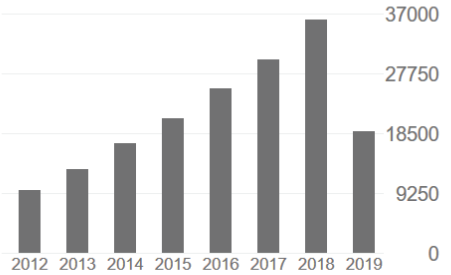

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Review

Does psychotherapy work? An umbrella review of meta-analyses of randomized controlled trials

Dragioti E, Karathanos V, Gerdle B, Evangelou E. Does psychotherapy work? An umbrella review of meta-analyses of randomized controlled trials.

Objective: To map and evaluate the evidence across meta-analyses of randomized controlled trials (RCTs) of psychotherapies for various outcomes.
Methods: We identified 173 eligible studies, including 247 meta-analyses that synthesized data from 5157 RCTs via a systematic search from inception to December 2016 in the PubMed, PsycINFO and Cochrane Database of Systematic Reviews. We calculated summary effects using random-effects models, and we assessed between-study heterogeneity. We estimated whether large studies had significantly more conservative results compared to smaller studies (small-study effects) and whether the observed positive studies were more than expected by chance. Finally, we assessed the credibility of the evidence using several criteria.
Results: One hundred and ninety-nine meta-analyses were significant at P-value ≤ 0.05, and almost all ($n = 196$) favoured psychotherapy. Large and very large heterogeneity was observed in 130 meta-analyses. Evidence for small-study effects was found in 72 meta-analyses, while 95 had evidence of excess of significant findings. Only 16 (7%) provided convincing evidence that psychotherapy is effective. These pertained to cognitive behavioural therapy ($n = 6$), meditation therapy ($n = 1$), cognitive remediation ($n = 1$), counselling ($n = 1$) and mixed types of psychotherapies ($n = 7$).
Conclusions: Although almost 80% meta-analyses reported a nominally statistically significant finding favouring psychotherapy, only a few meta-analyses provided convincing evidence without biases.

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Key words: psychotherapy; meta-analysis; treatment; randomized controlled trial

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- The **247 unique meta-analyses** synthesized data from **5157 primary RCTs**.
- Each meta-analysis included a **median of 16 studies** [interquartile range (IQR): 12–24] with **a median number of participants equal to 1358** (IQR: 870–2273).
- The total **number of participants was >1000 in 169** of 247 meta-analyses.
- most studied outcomes were
  - depression-related outcomes (n = 65),
  - anxiety-related outcomes (n = 37),
  - disease-related physical outcomes (n = 20),
  - disease-specific distress- related outcomes (n = 27),
  - pain-related outcomes (n = 14),
  - trauma-related outcomes (n = 18)
  - various other outcomes (n = 20).

Résultats

• Of the 247 meta-analyses, **only 16 (7%) had convincing evidence (Class I) criteria in favour of the psychotherapy treatment :**

- Statistically significant summary treatment effects at P-value < 10^{-6}
- Had a total sample size of over 1000 participants
- Low or moderate heterogeneity (I^2 < 50%)
- Had a 95% CI that excluded the null value
- Had no evidence of small-study effects (P-value for Egger's test ≤0.10)
- Largest study with a more conservative ES than random-effects summary ES
- No evidence for excess significance.

Open access, freely available online

Essay

Why Most Published Research Findings Are False

John P. A. Ioannidis

Summary

There is increasing concern that most current published research findings are false. The probability that a research claim is true may depend on study power and bias, the number of other studies on the same question, and, importantly, the ratio of true to no relationships among the relationships probed in each scientific field. In this framework, a research finding is less likely to be true when the studies conducted in a field are smaller; when effect sizes are smaller; when there is a greater number and lesser preselection of tested relationships; where there is greater flexibility in designs, definitions, outcomes, and analytical modes; when there is greater financial and other interest and prejudice; and when more teams are involved in a scientific field in chase of statistical significance. Simulations show that for most study designs and settings, it is more likely for a research claim to be false than true. Moreover, for many current scientific fields, claimed research findings may often be simply accurate measures of the prevailing bias. In this essay, I discuss the implications of these problems for the conduct and interpretation of research.

Published research findings are sometimes refuted by subsequent

factors that influence this problem and some corollaries thereof.

Modeling the Framework for False Positive Findings

Several methodologists have pointed out [9–11] that the high rate of nonreplication (lack of confirmation) of research discoveries is a consequence of the convenient, yet ill-founded strategy of claiming conclusive research findings solely on the basis of a single study assessed by formal statistical significance, typically for a *p*-value less than 0.05. Research is not most appropriately represented and summarized by *p*-values, but, unfortunately, there is a widespread notion that medical research articles

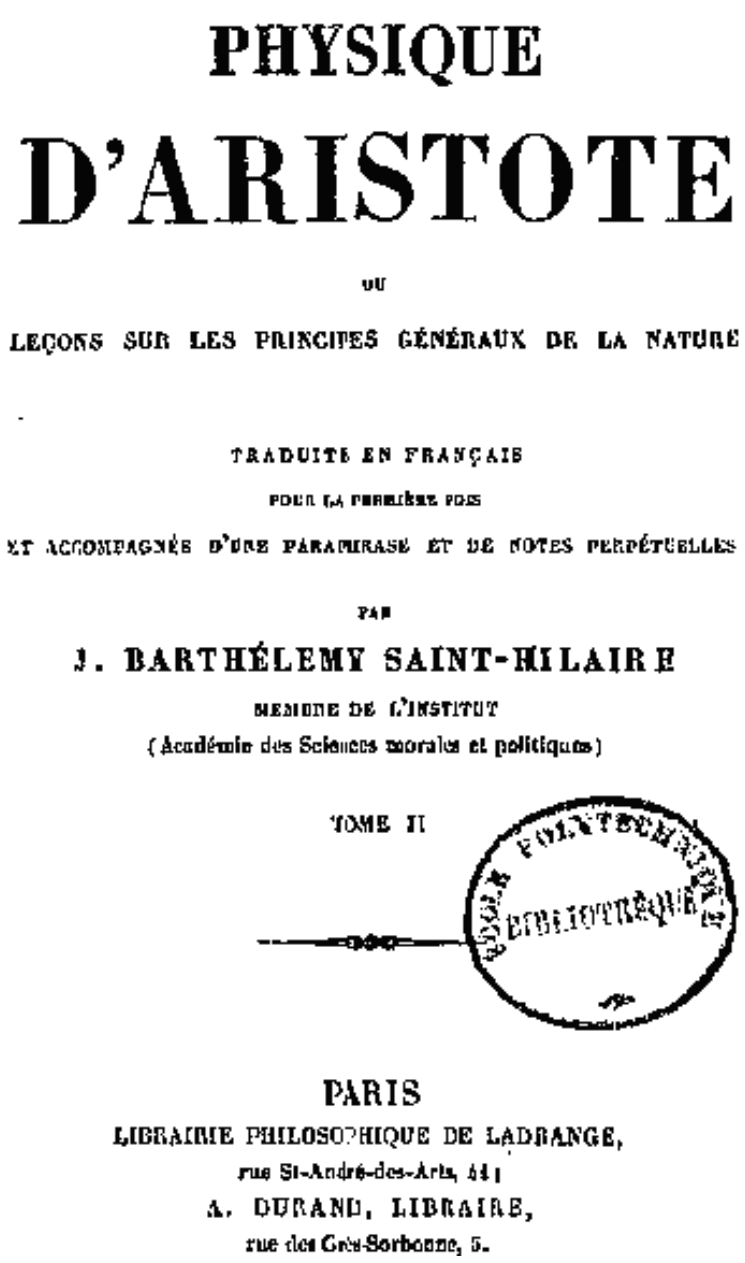
It can be proven that most claimed research findings are false.

should be interpreted based only on *p*-values. Research findings are defined here as any relationship reaching formal statistical significance, e.g., effective interventions, informative predictors, risk factors, or associations. "Negative" research is also very useful. "Negative" is actually a misnomer, and the misinterpretation is widespread. However, here we will target

is characteristic of the field and can vary a lot depending on whether the field targets highly likely relationships or searches for only one or a few true relationships among thousands and millions of hypotheses that may be postulated. Let us also consider, for computational simplicity, circumscribed fields where either there is only one true relationship (among many that can be hypothesized) or the power is similar to find any of the several existing true relationships. The pre-study probability of a relationship being true is $R/(R+1)$. The probability of a study finding a true relationship reflects the power $1-\beta$ (one minus the Type II error rate). The probability of claiming a relationship when none truly exists reflects the Type I error rate, α. Assuming that c relationships are being probed in the field, the expected values of the 2×2 table are given in Table 1. After a research finding has been claimed based on achieving formal statistical significance, the post-study probability that it is true is the positive predictive value, PPV. The PPV is also the complementary probability of what Wacholder et al. have called the false positive report probability [10]. According to the 2×2 table, one gets $PPV = (1-\beta)R/(R - \beta R + \alpha)$. A research finding is thus

Synthèse « à l’emporte-pièce »

- La plupart des résultats publiés sont faux (donc inutiles).
- Quand ils ne sont pas faux, la plupart sont tout de même inutiles.



PHYSIQUE

D'ARISTOTE

OU

LEÇONS SUR LES PRINCIPES GÉNÉRAUX DE LA NATURE

TRADUITE EN FRANÇAIS

POUR LA PREMIÈRE FOIS

ET ACCOMPAGNÉE D'UNE PARAPHRASE ET DE NOTES PERPÉTUELLES

PAR

J. BARTHÉLEMY SAINT-HILAIRE

MEMBRE DE L'INSTITUT

(Académie des Sciences morales et politiques)

TOME II

ECOLE POLYTECHNIQUE BIBLIOTHÈQUE

PARIS

LIBRAIRIE PHILOSOPHIQUE DE LADRANGE,

rue St-André-des-Arts, 44;

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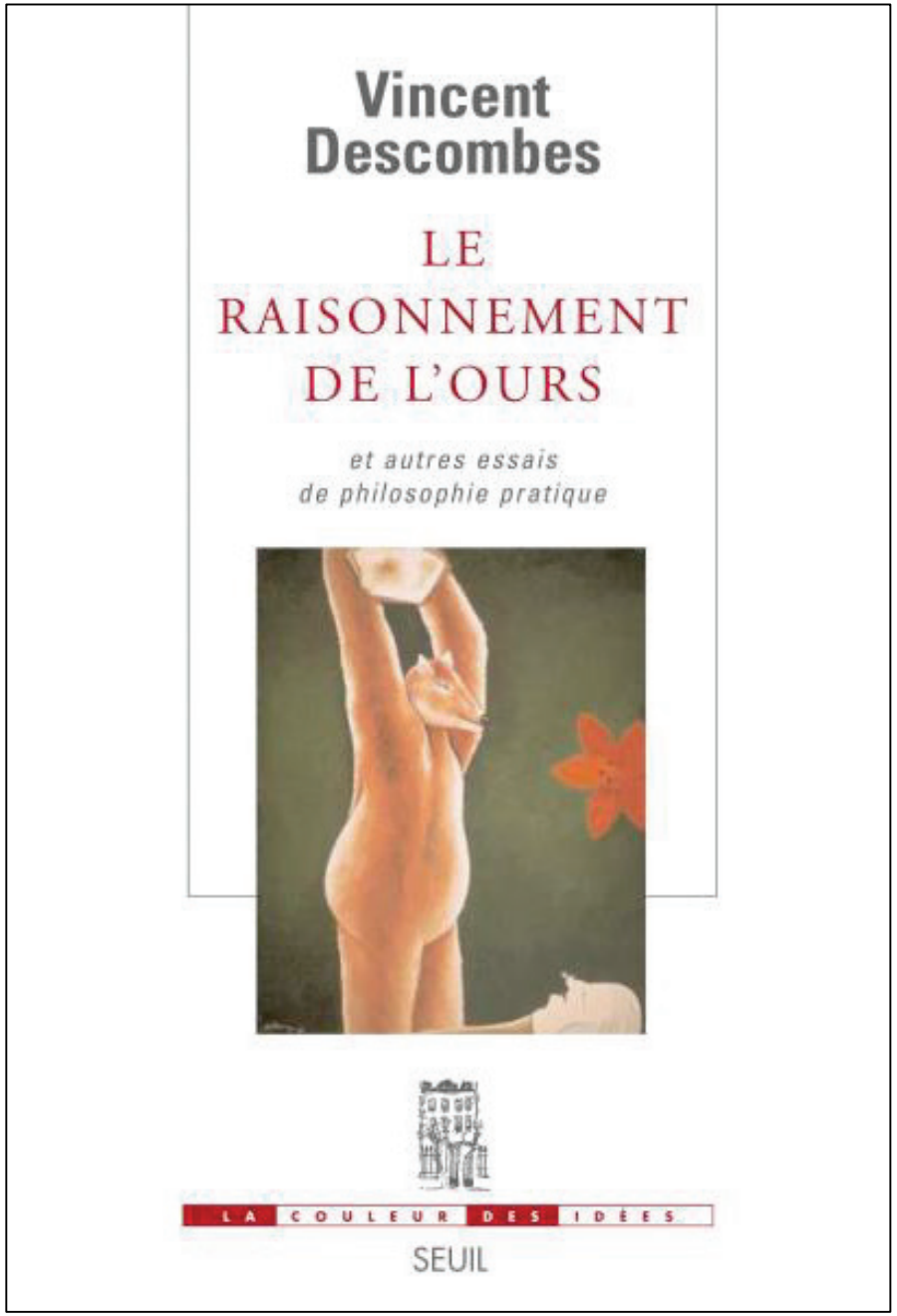
"Abstraire n'est pas mentir"

- "Le mathématicien, quand il étudie les surfaces, les lignes et les points, ne s'en occupe pas en tant que ce sont là les limites d'un corps naturel, et il ne regarde pas davantage aux propriétés qui peuvent accidentellement leur appartenir **en tant que ces propriétés appartiennent à des êtres réels** : aussi il peut abstraire ces notions […] ; et cette abstraction, qui n'amène aucune différence, n'est pas faite pour produire d'erreur".

- http://remacle.org/bloodwolf/philosophes/Aristote/phys22.htm



L'illusion nomocratique (pp. 287-309)

- « Dans le cas du jugement théorique, faire abstraction de quelque chose n'est pas *mentir* ou produire une représentation incorrecte de la chose, car je n'exclus rien par cette abstraction ».

- « En revanche, dans le cas pratique, l'abstraction risque toujours d'être une exclusion inopportune, voire désastreuse, car cette abstraction revient à tenir pour insignifiant et sans portée pratique ce qui, peut-être, est plein de sens ou est de première importance.

- En matière pratique, « **l'abstraction est une décision qui peut être grave** »
- (pp. 300-301)

Il y a un animal dans ce jardin

Conclusion

- « On ne doit pas confondre le travail théorique d'un enquêteur et le travail délibératif d'un acteur » (p. 303).
- Travail délibératif (*phronésis*) : « exercice d'un sens qui permet de distinguer ce qui est pertinent et ce qui ne l'est pas. Il ne s'agit donc plus de *ce qui existe*, mais de *ce qui importe* » (p. 304).

- **Les données ne doivent pas rendre invisible ce qui importe au motif de rendre visible ce qui existe, mais venir soutenir la délibération pratique.**
- **En l'occurrence celle des acteurs concrets, en situation concrète, avec des enfants concrets.**

Perspectives

Sortir de la vision de l'humain / de l'enfant comme *« Homo-Odd Ratius » (modèle « bio-psycho-social »).*

Aller vers des modèles individualisés, contextualisés, historisés.

Construire des connaissances pour l'action, et pas seulement de l'action à partir de la connaissance disponible.

Ré-examiner (raisonnablement) les postulats de neutralité axiologique des données.

Rôle essentiel du numérique « 3.0 » et des nouveaux modèles idiographiques : données et actions individuelles, situées, contextualisées, temps-réel.