

SELECTIVE BIBLIOGRAPHY¹

Some books:

- Borenstein, M., Hedges, L. V., Higgins, J. P. T., and Rothstein, H. R. 2009. Introduction to Meta-Analysis. John Wiley & Sons, Chichester, U.K. (*Excellent introductory textbook for the non-statistician*).
- Cooper, H., Hedges, L. V., and Valentine, J. C., editors. 2009. The Handbook of Research Synthesis and Meta-Analysis, 2nd edition. Sage Publications, Thousand Oaks, CA.
- Glass, G. V., McGaw, B., and Smith, M. L. 1981. Meta-Analysis in Social Research. Sage Publ., Beverly Hills, CA.
- Hartung, J., Knapp, G., and Sinha, B. K. 2008. Statistical Meta-Analysis with Applications. John Wiley & Sons, Hoboken, NJ. (*More theoretical, with more emphasis on hypothesis testing. Good stuff*).
- Hedges, L. V., and Olkin, I. 1985. Statistical Methods for Meta-Analysis. Academic Press, Orlando, FL. (*Important early major reference*).
- Hunter, J. E., and Schmidt, F. L., 2004. Methods of Meta-Analysis: Correcting Error and Bias in Research Findings. 2nd ed. Sage Publications Inc., Thousand Oaks, CA. (*A different approach to meta-analysis, compared with the "standard methods"*).
- Light, R.J., and Pillemer, D.B. 1984. Summing Up: The Science of Reviewing Research. Harvard University Press, Cambridge, MA.
- Lipsey, M. W., and Wilson, D. B. 2001. Practical Meta-Analysis. Sage Publications Inc., Thousand Oaks, CA. (*Very good introductory textbook for non-statistician*).
- Rosenthal, R. 1984. Meta-Analytic Procedures for Social Research, first edition. Sage Publ., Beverly Hills, CA.
- Whitehead, A. 2002. Meta-Analysis of Controlled Clinical Trials. John Wiley and Sons, West Sussex, England. (*Recommended*).

Some articles:

- Arends, L. R., Hoes, A. W., Lubsen, J., Grobbee, D. E., and Stijnen, T. 2000. Baseline risk as predictor of treatment benefit: three clinical meta-re-analyses. *Stat. Med.* 19: 3497-3518.
- Arends, L. R., Voko, Z., and Stijnen, T. 2003. Combining multiple outcome measures in a meta-analysis. *Stat. Med.* 22: 1093-1103.
- Bagos, P. G. 2008. A unification of multivariate methods for meta-analysis of genetic association studies. *Statistical Applications in Genetics and Molecular Biology* 7(1): article 31. DOI: 10.2202/1544-6115.1408.
- Baker, R.D., and Jackson, D. 2013. Meta-analysis inside and outside particle physics: two traditions that should converge. *Research Synthesis Methods* 4: 109-124.
- Biggerstaff, B. J., and Jackson, D. 2008. The exact distribution of Cochran's heterogeneity statistic in one-way random effects meta-analysis. *Stat. Med.* 27: 6093-6110. (*recommended*).
- Borenstein, M., Hedges, L. V., Higgins, J. P. T., and Rothstein, H. R. 2010. A basic introduction to fixed-effect and random-effects models for meta-analysis. *Res. Synth. Meth.* 1: 97-111. (*Excellent introduction for the individual with limited statistical experience*). (*Recommended*).
- Chalmers, I., Hedges, L. V., and Cooper, H. 2002. A brief history of research synthesis. *Evaluation and the Health Professions* 25: 12-37.
- Chen, H., Manning, A.K., and Dupuis, J. 2012. A method of moments estimator for random effect multivariate meta-analysis. *Biometrics* 68: 1278-1284.
- Cochran, W. G. 1954. The combination of estimates from different experiments. *Biometrics* 10: 101-129.
- Copas, J., and Jackson, D. 2004. A bound for publication bias based on the fraction of unpublished studies. *Biometrics* 60: 146-153.

¹ A somewhat arbitrary listing of some books and papers that deal with meta-analysis. Many of the references are cited in the Power Point slides, but other interesting papers and books are also listed here. Emphasis is on recent papers that extend the methodology in important ways (e.g., multivariate analysis, multi-treatment meta-analysis). Many early classical articles are not given here because they are discussed in the listed key reviews. Some papers in the biological sciences are also given if they serve as the basis for a case study.

- DerSimonian, R., and Kacker, R. 2007. Random-effects model for meta-analysis of clinical trials: An update. *Contemporary Clinical Trials* 28: 105-11.
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- Egger, M., Davey Smith, G., Schneider, M., and Minder, C. 1997. Bias in meta-analysis detected by a simple, graphical test. *Brit. Med. J.* 315:629-634.
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- Fletcher, D., and Dixon, P.M. 2012. Modelling data from different sites, times or studies: weighted vs. unweighted regression. *Meth. Ecol. Evol.* 3: 168-176.
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- Glass, G. V., 1976. Primary, secondary, and meta-analysis. *Educational Researcher* 5: 3-8.
- Glesser, L.J., and Olkin, I. 2009. Stochastically dependent effect sizes. Pages 357-376 in: *The Handbook of Research Synthesis and Meta-Analysis*. H. Cooper, L.V. Hedges, and J.C. Valentine, editors. Russell Sage Foundation Publ., NY.
- Hartung, H., Makambi, K.H., and Argac, D. 2001. An extended ANOVA F-test with applications to the heterogeneity problem in meta-analysis. *Biom. J.* 43: 135-146.
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- Higgins, J. P. T., Thompson, S. G., and Spiegelhalter, D. J. 2009. A re-evaluation of random-effects meta-analysis. *J. Roy. Stat. Soc. A* 172: 137-159. (*Recommended*).
- Higgins, J.P.T., Jackson, D., Barrett, J.K., Lu, G., Ades, A.E., and White, I.R. 2012. Consistency and inconsistency in network meta-analysis: Concepts and models for multi-arm studies. *Research Synthesis Methods* 3: 98-110.
- Jackson, D. 2013. Confidence intervals for the between-study variance in random effects meta-analysis using generalised Cochran heterogeneity statistics. *Research Synthesis Methods* 4: 220-229.
- Jackson, D., Bowden, J., and Baker, R. 2010. How does the DerSimonian and Laird procedure for random effects meta-analysis compare with its more efficient but harder to compute counterparts? *J. Stat. Plan. Inf.* 140: 961-970.
- Jackson, D, White, I.R., and Thompson, S.G. 2010. Extending DerSimonian and Laird's methodology to perform multivariate random effects meta-analyses. *Stat. Med.* 29: 1282-1297.
- Jackson, D., White, and Riley, R.D. 2013. A matrix-based method of moments for fitting the multivariate random effects model for meta-analysis and meta-regression. *Biom. J.* 55: 231-245.
- Jackson, D., and Riley, R.D. 2014. A refined method for multivariate meta-analysis and meta-regression. *Stat. Med.* 33: 541-554. (*has a good review of some robust methods*).
- Kacker, R.N., and Harville, D.A. 1984. Approximations for standard errors of estimators of fixed and random effects in mixed linear models. *JASA* 79: 853-862.
- Kenward, M.G., and Roger, J.H. 2009. An improved approximation to the precision of fixed effects from restricted maximum likelihood. *Comput. Stat. Data Anal.* 53: 2583-2595.
- Lu, G., and Ades, A. E. 2004. Combination of direct and indirect evidence in mixed treatment comparisons. *Stat. Med.* 23: 3105-3124.
- Lu, G., and Ades, A. E. 2006. Assessing evidence consistency in mixed treatment comparisons. *J. Am. Statist. Assoc.* 101: 447-459.
- Madden, L.V. and Paul P.A. 2011. Meta-analysis for evidence synthesis in plant pathology: An overview. *Phytopathology* 101: 16-30.
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- Möhring, J., and Piepho, H.-P. 2009. Comparison of weighting in two-stage analysis of plant breeding trials. *Crop Sci.* 49: 1977-1988.
- Normand, S.-L. 1999. Meta-analysis: Formulating, evaluating, combining, and reporting. *Stat. Med.* 18: 321-359. (*there are easier and less cumbersome ways in SAS to do the analyses she describes, as explained in workshop*).

- Paul, P. M., Lipps, P. E., and Madden, L. V. 2005. Relationship between visual estimates of Fusarium head blight intensity and deoxynivalenol accumulation in harvested wheat grain: A meta-analysis. *Phytopathology* 95: 1225-1236.
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