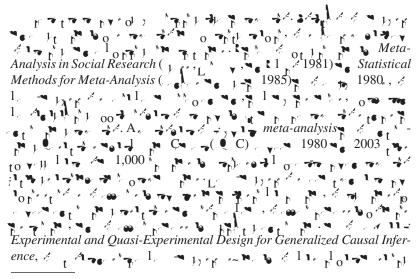
D C. B R
University of Colorado, Boulder

This article raises some questions about the usefulness of meta-analysis as a means of reviewing quantitative research in the social sciences. When a meta-analytic model for SAT coaching is used to predict results from future studies, the amount of prediction error is quite large. Interpretations of meta-analytic regressions and quantifications of program and study characteristics are shown to be equivocal. The match between the assumptions of the meta-analytic model and the data from SAT coaching studies is not good, making statistical inferences problematic. Researcher subjectivity is no less problematic in the context of a meta-analysis than in a narrative review.

Keywords: meta-analysis; literature review; SAT coaching; statistical inference



 $\begin{tabular}{ll} $A$ & $\bullet$ & $\bullet$ : The author thanks David Freedman and Lorrie Shepard for helpful comments on earlier versions of this article.$ 

o ( 1986; 1988; B 2004; B 1 2003). (1990; 1990;

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TABLE 1: Observed and Predicted Effects From New Coaching Studies

			P ed c e	edcedCac FE	Effec F Bec	Bec e (1990)
Re	p S	C ac 🐧 Effec	M de A	M de B	M de C	M de $D$
Н ее (1984)	SAT-V	57	30	11.6	12.9	24.5
	SAT-M	37	30	25.5	1.2	35.8
Fae (1987)	SAT-V	16	30	11.6	1.9	0.8
	SAT-M	16	30	25.5	13.6	12.1
Ha e (1988)	SAT-M	21	30	25.5	14.5	8.1
W a (1988)	SAT-V	=	30	11.6	2.7	0.5
	SAT-M	16	30	25.5	14.4	11.8
S edec (1989)	SAT-V	0	30	11.6	2.7	0.2

## TABLE 2: Average Prediction Error From Becker's (1990) Meta-Analytic Models

TABLE 4: Estimated Coaching Effects in Randomized Studies

Re	a dS d	SAT-M	SAT-V
A de	a a dP e (1980)		
Sc	A		22
Sc	В		9
Sc	C		14
Sc	D		14
Sc	E		1
Sc	F		14
Sc	G		18
Sc	Н		1
Еа	a dP e (1973)		
G	A	12	
G	В	25	
G	C	11	
La c	e e (1985)	8	0
R be	a d O e e (1966)		
Sc	A		17
Sc	В	12	
Z a	(1988)	51	14
Med a	a effec e a e	12	14

## TABLE 5:

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$$X_{hij}^{C} z N(\mu_{hi}^{C}, \sigma_{hi}^{2}) and Y_{hij}^{C} z N(\nu_{hi}^{C}, \sigma_{hi}^{2}),$$

$$(4)$$

4601-4 11 1/6 1 text .,

$$X_{hij}^{U} \geq N\left(\mu_{hi}^{U}, \sigma_{hi}^{2}\right) \text{ and } Y_{hij}^{U} \geq N\left(\nu_{hi}^{U}, \sigma_{hi}^{2}\right). \tag{5}$$

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TABLE 6: Studies by Coaching Mode and Design

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C e-ba ed c ac H ee (1984) La c e e (1985)

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	-	-	-	15	_	-	-	-	-	-	0	0	0	
Sa	-	-	-	4	-	-	0	0	0	-	0	0	0	
Sc ede	-	-	-	16	0	-	N	-	-	-	-	0	0	
H e a d Keffe	-	0	-	∞	_	0	-	0	0	0	0	0	-	
W e	-	0	-	89	-	0	0	-	-	-	0	0	0	
P e adRc	-	-	-	15	_	-	-	-	-	-	0	0	0	
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Sa	95	0	0	-	0	-	2
Sc ede	95	0	0	0	0	0	2
H e ad Keffe	92	-	0	-	0	0	2
W e	96	0	-	0	0	0	2
P e adRc	66	-	0	0	-	-	2
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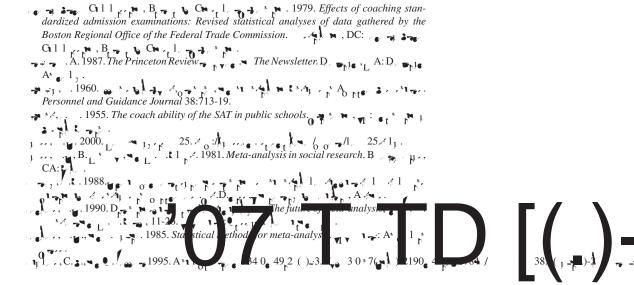
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