

Publication bias in QCA

Meaning, diagnosis and remedies

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A short intro to QCA

Terminology and concepts

Independent variable = condition (set)

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Terminology and concepts

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Search for set relations

- Sufficiency: If A, then Y
- Necessity: Only if A, then Y

Types of sets

- Crisp sets: 0 or 1
- Fuzzy sets: Between 0 and 1 (including)

From variables to sets: Calibration

Uncalibrated variable

From variables to sets: Calibration

Calibrated variable

Does the data support a set-relational claim?

Consistency: Is data consistent with an inference of sufficiency?

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Consistency of 0.8

	A	
	0	1
Y		
0	4	2
1	6	8

Does the data support a set-relational claim?

Consistency: Is data consistent with an inference of sufficiency?

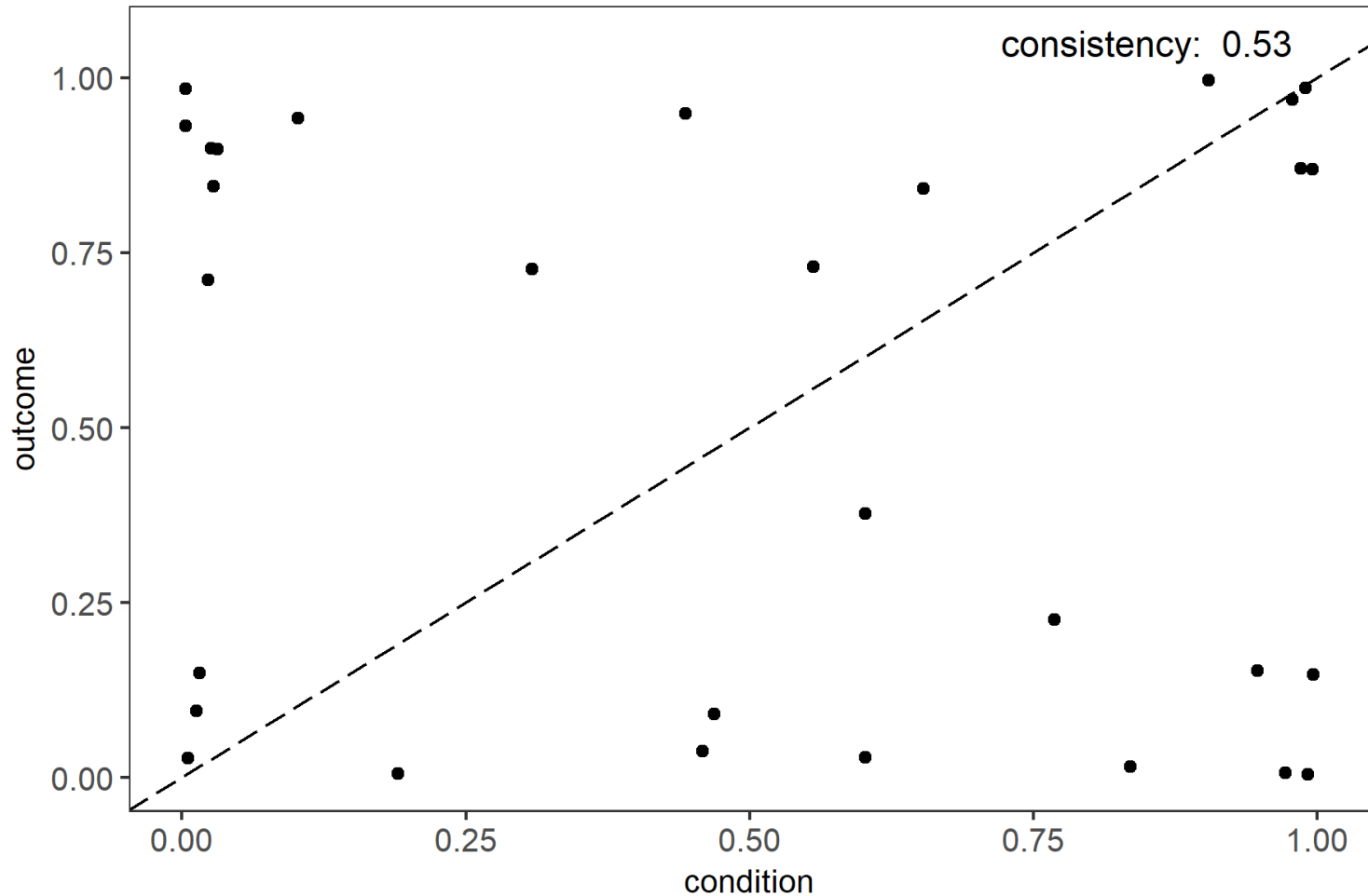
Consistency of 0.8

		A	
		0	1
Y	0	4	2
	1	6	8

Consistency of 0.5

		A	
		0	1
Y	0	4	5
	1	6	5

Does the data support a set-relational claim?



Distribution of solution consistency

Results for 359 solutions from 170 articles (2009-2017)

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Results for 359 solutions from 170 articles (2009-2017)

Caliper test for solution consistency

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Results for 359 solutions from 170 articles (2009-2017)

cutoff	range	lower	upper	above	below	pvalue
0.75	0.05	0.725	0.775	13	3	1.063538e-02
0.75	0.10	0.700	0.800	40	5	3.939192e-08
0.75	0.20	0.650	0.850	93	10	2.599305e-18

Caliper test for solution consistency

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0.75	0.20	0.650	0.850	93	10	2.599305e-18

Results for 300 solutions from 50 dissertations (2009-2017)

cutoff	range	lower	upper	above	below	pvalue
0.75	0.05	0.725	0.775	15	8	0.1050198078
0.75	0.10	0.700	0.800	33	20	0.0491853242
0.75	0.20	0.650	0.850	67	31	0.0001772669

Should we bother about positive results?

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Exploration/induction vs confirmation/deduction in 170 QCA articles

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Researchers' degrees of freedom in QCA

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2. Choice of conditions and outcome

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Researchers' degrees of freedom in QCA

1. Hypotheses
2. Choice of conditions and outcome
3. Delineation of sample/population
4. Calibration (anchors, link function)
5. Truth table parameters (cutoffs, remainder handling)
6. Solution parameters (type, remainder handling)

Degrees of freedom: Sample and optional stopping

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Degrees of freedom: Samples and populations in articles

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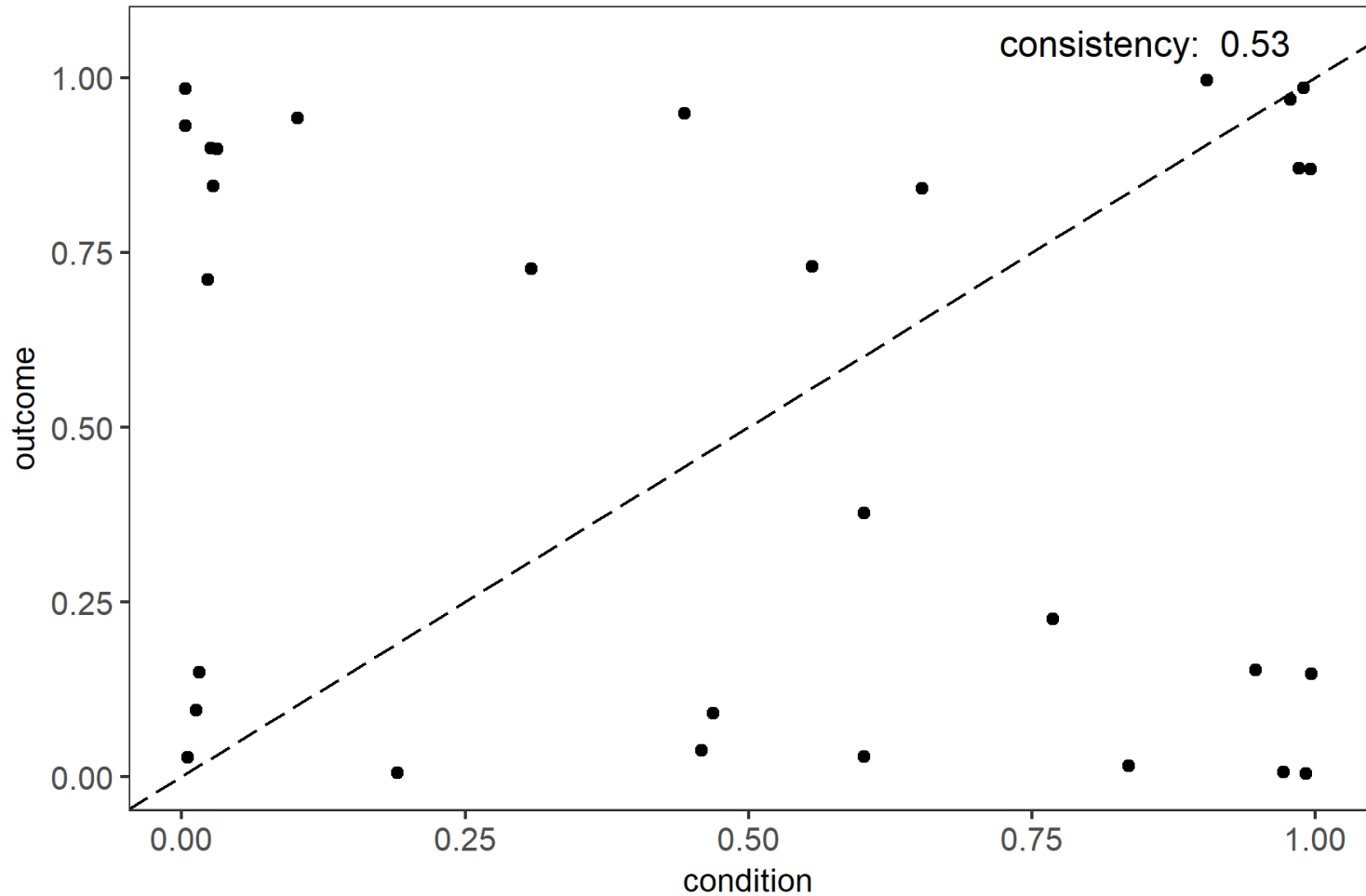
Flexibility in delineating population (space, time, substance)

Degrees of freedom: Samples and populations in articles

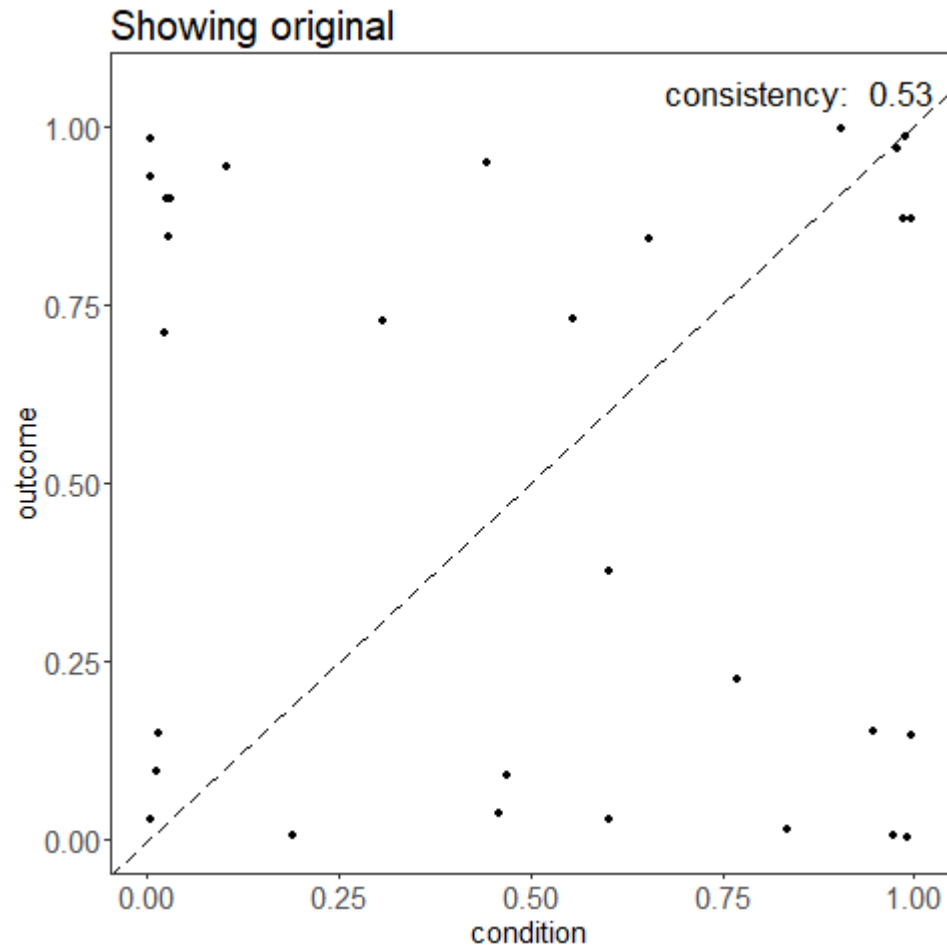
Flexibility in delineating population (space, time, substance)

Sizeable number of QCA articles use apparent populations or samples

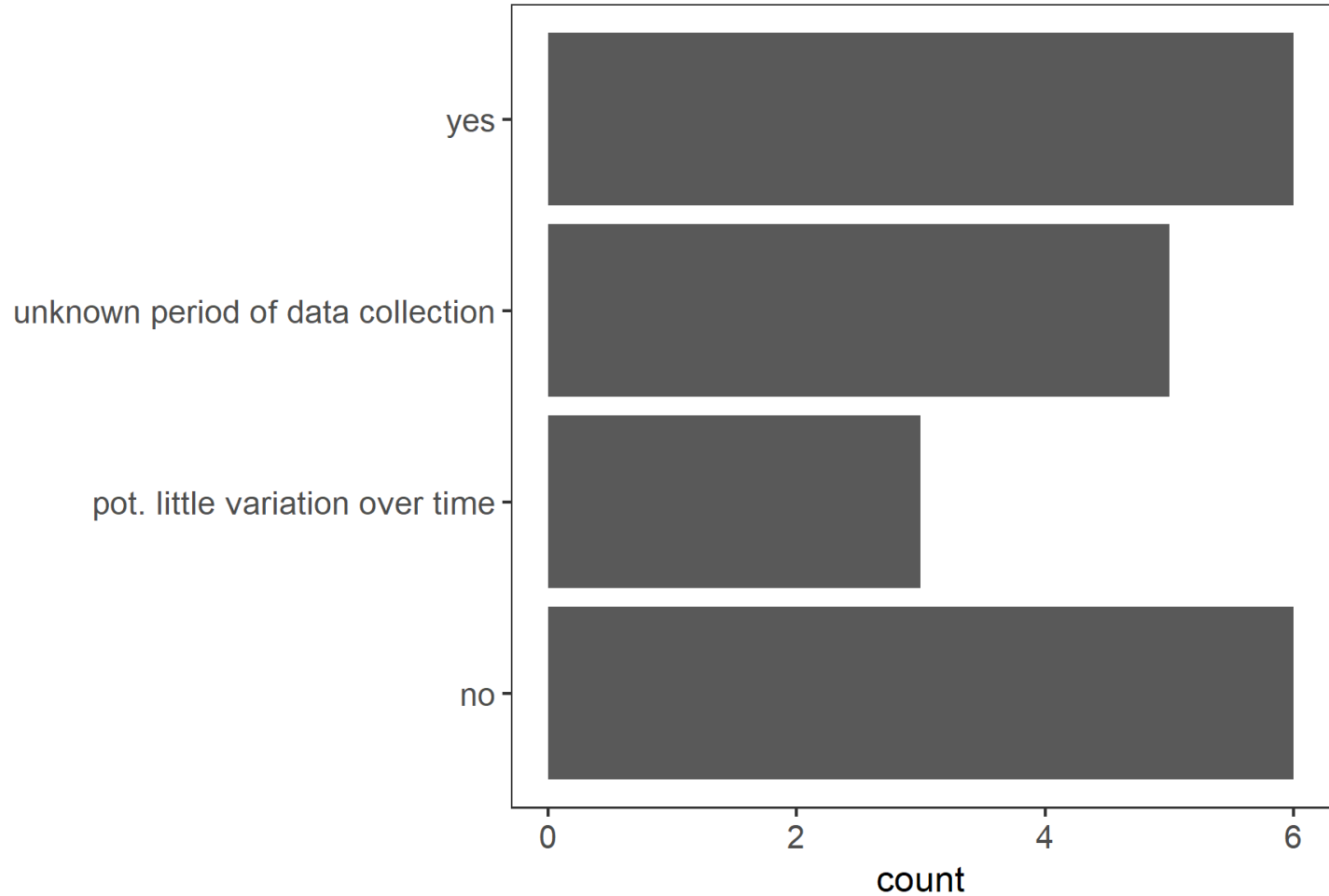
Degrees of freedom: Calibration



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Opportunity for preregistration



Opportunity for results-blind review

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Information for judging quality of theory and design in results section?

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Blinding in QCA

- No results section
- Blinded truth table and raw data (if N small)
- Mock truth table parameters