Appendix D: Code book

for

Kuehn, David and Ingo Rohlfing (2016): Are There Really Two Cultures? A Pilot Study on the Application of Qualitative and Quantitative Methods in Political Science. *European Journal of Political Research* 55 (4): 885-905 (http://dx.doi.org/10.1111/1475-6765.12159)

Codebook

Dimension 0: Identification and general information

Item		Code
A	**Year**	Publication Year *Year*
B	**Journal Title**	Journal in which the article was published *Journal title*
C	**Volume**	Volume of the journal in which the article was published *Volume #*
D	**Issue**	Issue of the volume in which the article was published *Issue #*
E	**Page_numbers**	Page numbers of the article *Page #*
F	**Title of Publication**	Title of the article *Article title*
G	**Author(s)**	Author's name (if more than one author, list all authors' names separated by comma) *Surname, first name*
H	**N_authors**	Number of authors

		Number
I	**Gender**	Gender of authors (if more than one author, list all authors' genders separated by comma) *F: female* *M: male*
J	**Location**	Location of author's institutional affiliation (country). Based on ISO 3166 Alpha2 country codes (if more than one author, list country codes separated by comma) *ISO country code*
K	**Discipline**	Political science sub-discipline of the article *1: American* *2: Comparative* *3: International Relations*
L	**Paradigm**	Article is qualitative or quantitative *0: Quantitative article* *1: Qualitative article* *3: Multi-method article combining quantitative and qualitative methods*

Dimension 1: Individual cases

Item		Code	Expectations according to *ATTC*	
			Quantitative	Qualitative
1	**Explain outcome in individual case**	*No (0):* The outcome of no individual case is explained explicitly *Yes (1):* The outcome of at least one individual case is explained explicitly Note: Cases should be distinguished from observations. Following ATTC, quantitative studies are always coded "0" because no case is explained in detail. Cases are then defined as what receives the values and are in single-country survey studies the individuals.	No	Yes
1a	**Explain outcome in individual case (not as in ATTC)**	*No (0):* The outcome of no individual case is explained explicitly *Yes (1):* The outcome of at least one individual case is explained explicitly Note: A quantitative case study (à la Gerring) is done when a country/organization/institution is the relevant case and lower-		

		level observations are used to make inferences about this case. Whether the country etc. can be taken as the relevant case depends on the research question which needs to checked.		
2	**Cross-case vs. within-case level**	*Cross-case (0):* Empirical analysis of causal effects and cross-case regularities *Within-case (1):* Empirical analysis of within-case processes and mechanisms *Both (3):* Empirical analysis of cross-case regularities and within-case mechanisms <u>Note:</u> Cross-case analysis is interested in an effect (present/absent, marginal effect, necessity/sufficient). Within-case analysis must have a temporal element in linking cause to effect.	Cross-case	Within-case
3	**Causal mechanism analyzed empirically**	*No (0):* Causal mechanism is not analyzed *Yes (1):* Causal mechanism is analyzed <u>Note:</u> Mechanism is analyzed when authors study how cause and effect are related to each other.		

3a	**Causal mechanism theorized**	*No (0):* Causal mechanism is not theorized explicitly *Yes (1):* Causal mechanism is theorized explicitly <u>Note:</u> Mechanism is theorized when authors explain how cause and effect are related to each other.	No	Yes
4	**Process tracing**	*No (0):* Analysis of within-case processes is not part of the empirical analysis *Yes (1):* Analysis of within-case processes is part of the empirical analysis <u>Note:</u> Process tracing is given when some process is reconstructed in the empirical analysis. It is not sufficient to report isolated within-case evidence that does not constitute a process.	No	Yes
5	**Counterfactual analysis**	*Yes: Cross-case (0):* Explicit discussion of cross-case counterfactuals (Effect of extreme values in the sample) *Yes: Within-case (1):* Explicit discussion of within-case *counterfactuals* (Discussion of alternative historical processes)	Yes (Cross-case, 0)	Yes (Within-case, 1)

		Note: Quantitative counterfactuals ask for marginal effect or predicted outcome if variables were taking specific values. Qualitative counterfactuals “rerun the history of one or more specific cases” (223), indicated by considering alternative paths and “what-if” discussions. Need to be substantial and cover multiple sentences or one paragraph at least.		

Dimension 2: Causality and causal models

Item		Code	Expectations according to *ATTC*	
			Quantitative	Qualitative
6	**Individual variable is at focus**	*Yes (0):* Discussion of causal effect of individual variable(s) on the outcome *No (1):* No discussion of causal effect of individual variable(s) on the outcome Note: Overlaps with items 7 and 8 because the non-focus on individual variables implies the focus on set relations and conjunctions (224).	Yes	No
7	**Configurations; interaction terms**	*No (0):* Causal model does not contain causal configurations and interactions between variables *Yes (1):* Causal model does contain causal configurations and interactions between variables Note: Interaction/configuration should be part of the empirical analysis, not only theorized. Squared multiplicative interaction terms count as ordinary interactions to be coded "1".	No	Yes

8	**Causal effect**	*Average Treatment Effect (ATE) (0)*: Causal effect is conceptualized as Average Treatment Effect *Set Logic (1):* Causal effect is conceptualized as necessary and/or sufficient condition (including variants: INUS, etc.) <u>Note:</u> For ATTC, some treatment effect is more important than that it is the *average* treatment effect. "Treatment effect" is synonymous with marginal effect or causal effect in empirical study. Thinking in terms of set logic should be explicit and use corresponding language: is sufficient for, presence of X leads to presence of Y, X produces/generates/brings about Y, if-X-then-Y	ATE	Set Logic
9	**Purpose of counterfactual**	*After causal inference (0):* explicit *counterfactual* has no relevance for causal inference. An explicit discussion of *counterfactuals* happens ex post *Prior to causal inference (1): counterfactual* is central for causal inference <u>Note:</u> Identical with item 5.	After causal inference	Prior to causal inference
10	**Equifinality**	*Implicit (0):* No discussion of multiple causal paths or equifinality (including alternative explanations and control	Implicit	Explicit

		variables) *Explicit (1):* Explicit discussion of multiple causal paths or equifinality (including alternative explanations and control variables) <u>Note:</u> ATTC is ambiguous regarding equifinality. They say the complete quantitative model captures equifinality and that there are an infinite number of paths. This makes it useless to speak of a small number of specific paths, as they are central to qualitative research. The quantitative reading is in discord with the usual understanding (and how researchers discuss control variables in the articles). Multiple variables are part of one model, but they are rival variables. Given the estimated marginal effect, values on different variables can lead to the same value on the outcome and independently of the other variables. Thus, equifinality in quantitative research is possible. Discussion of equifinality must be sufficiently deep and go beyond mentioning control variables		
11	**Aggregation in causal model**	*Additive, log-linear (0):* Causal effects add up (log-)linearly or are linear in the *link*-function	Additive/log-linear	Set Logic

		Set Logic (1): Causal effects/mechanisms follow set-theoretic rules of aggregation (logical AND/minimum; OR/maximum) <u>Note:</u> Set-theoretic aggregation should be explicit and involve verbal "and" or "or" representing logical AND or OR. Aggregation in causal model is also coded "0" when variables are argued to have independent effects (implying additive effects). Linearity need not be mentioned. (There are more link functions than log-linearity.)		

Dimension 3: Populations and data

Item		Code	Expectations according to *ATTC*	
			Quantitative	Qualitative
12	**Scope**	*Broad (0):* Conclusions are generalized over a large population and for many different contexts *Narrow (1):* Conclusions are drawn only for a small number of cases and within narrowly defined contexts Note: Broad scope should be explicitly claimed. Otherwise, scope is taken to be narrow.	Broad	Narrow
13	**Case selection**	*Representative (0):* Sample is representative for population (selection of representative cases or random sampling) *Specific (1):* Sample focuses on theoretically or substantially important cases; set theoretic case selection Note: Choice of cases based on data availability is coded "99". No discussion of case selection strategy is coded "99". Choice of cases because of good comparability is coded "99" because it aims at strong basis for causal inference. Random sampling must be explicitly claimed or evident (survey data)	Representative	Specific

14	**Selection on dependent variable**	*No (0):* Variation on the dependent variable (outcome) is not truncated *Yes (1):* Limited variance on the dependent variable (outcome) Note: Authors need to state explicitly that they focus on a limited range of values on the outcome.	No	Yes
15	**Data Format**	*Case-based (0):* Each case is a „row“ in a dataset *Configurative/typology (1):* „Rows“ in the dataset are conceptual types/logical configurations of independent variables Note: Configurational view (see item 6) implies configurative data format. Otherwise, we code “0”.	Case-based	Configurative/typology
16	**Triangular data**	*Transformation (0):* Triangular data distribution is interpreted as heteroskedasticity. Solved by data transformation *Interpretation (1):* Triangular data distribution is interpreted as evidence for a particular set relation. No data transformation Note: We code “0” when data is transformed because of actual	Heteroskedasticity/data transformation	Set-relation/no data transformation

		heteroscedasticity, or concerns about it, or when authors control for it without testing (e.g., via robust standard errors).		

Dimension 4: Concepts and measurement

Item		Code	Expectations according to *ATTC*	
			Quantitative	Qualitative
17	**Terminology**	*Variables/indicators (0):* Measurement in terms of variables and indicators *Concepts/data (1):* Measurement in terms of concepts and their relationship to empirical data Note: Quantitative means that latent variables cause indicators (chap. 10). This is usually not made explicit, but we code "0" when researchers speak of "operationalization" and "indicators". Qualitative measurement is given when other terminology is used, e.g., "requirements" instead of indicators. "Operationalization" or "indicator" should not be used then. Concept definition should be significant and more than one or two sentences (e.g., a paragraph).	Variables/indicators	concepts/data
18	**Ontology**	*constructs (0):* Concepts are unobservable/latent constructs that are operationalized by measurable indicators *conceptualization (1):* Measurement based on multi-dimensional and specified concepts	Operationalization of latent concepts	Conceptualization

		Note: For "1", concepts must be explicitly defined on multiple dimensions. Otherwise, code is "0".		
19	**Variation**	*Complete (0):* Analysis and explanation of the full range of variance *Zones (1):* Focus on certain "zones" of variance Note: Same as item 14, but also covers cause.	Complete	Zones
20	**Variable transformation rationale**	*Yes (0):* Values are transformed to conform to statistical assumptions and to allow for inference *No (1):* Variables are not transformed without conceptual reasons Note: Transformation can be explicitly discussed or implicit, e.g., by simply noting that population size or GDP are logged because taking natural log is standard for transforming distribution. Conceptual transformation should be explicitly discussed.	Yes	No
21	**Typologies**	*Exclusive (0):* Categories are mutually exclusive *Overlapping (1):* Categories allow for overlapping membership of	Exclusive	Exclusive or overlapping

		cases <u>Note:</u> Self-explanatory.		

Dimension 5: Asymmetry

Item		Code	Expectations according to *ATTC*	
			Quantitative	Qualitative
22	**Explaining 0s different than explaining 1s**	*No (0):* Symmetric explanation; the same model and variables explain absence and presence of the outcome *Yes (1):* Asymmetric explanation; absence and presence of outcome are explained by different models and variables Note: Explanation is symmetric when it contains a contrast "Higher X, higher Y", "X, as opposed to not-X, leads to Y, as opposed to not-Y". Contrast on X or Y is enough because it implies contrast on the other variable. Asymmetric explanation otherwise.	No	Yes
23	**Concept and its opposite**	*No (0):* Symmetric concept: One variable captures the complete continuum of the concept *Yes (1):* Different definitions and indicators are used to measure the concept and its opposite Note: Different definitions and indicators for concept and its opposite should be explicit. Otherwise symmetry.	No	Yes

24	**Counterfactual $x_i \rightarrow x_j$ different from counterfactual $x_j \rightarrow x_i$**	*No (0): counterfactual* is symmetric *Yes (1): counterfactual* is asymmetric Note: Linked to item 5 and 9. Symmetry of counterfactual should be stated explicitly. Otherwise, we take it as asymmetric.	No	Yes
25	**2x2 tables when exchanging (0, 1) and (1, 0) cells**	*Symmetric (0):* Relation between variables does not change when interchanging rows and columns of a 2x2 matrix *Asymmetric (1)*: Relation between variables changes, when interchanging rows and columns of a 2x2 matrix Note: Correlates positively with items 22 and 23.	Symmetric	Asymmetric