Research Reproducibility in Political Science

Dr Nicole Janz

School of Politics and IR

Dr Nicole Janz
Assist. Prof. in International Relations

The University of **Nottingham**

UNITED KINGDOM · CHINA · MALAYSIA

Replication

Corruption

Human Rights

Political Science Replication Blog

@polscireplicate

More than half of psychology papers are not reproducible

Initiative to replicate findings of 100 prominent studies raises further questions about health of discipline

August 27, 2015

By <u>Paul Jump</u>   Twitter: <u>@PaulJump</u>
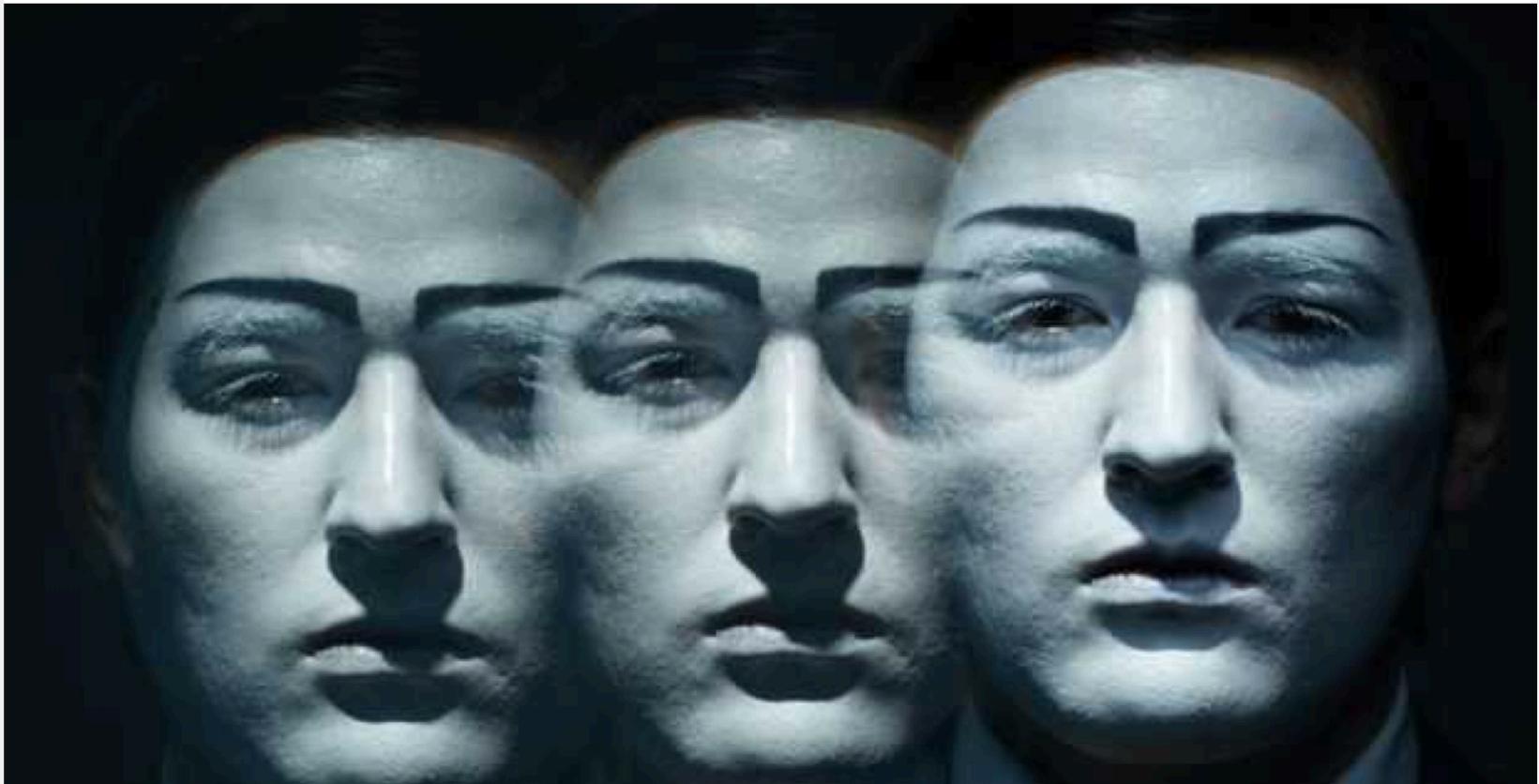
The Case of the Amazing Gay-Marriage Data: How a Graduate Student Reluctantly Uncovered a Huge Scientific Fraud

By **Jesse Singal**

How can we establish trust in science?

Data Access & Research Transparency (DA-RT)

Data transparency	Analytic transparency	Production transparency
Providing full access to data itself	Information about data analysis	Process of data collection

Data transparency	Analytic transparency	Production transparency
Providing full access to data itself	Information about data analysis	Process of data collection

Quantitative research

Upload datasets used for analysis

Code for models (SPSS, STATA, R)

Good methods section in paper

Provide or describe raw data & variable codings

(see Lupia/Elman 2014; Moravcsik 2014)

University training

Replication exercises

Bringing the Gold Standard into the Classroom: Replication in University Teaching[1]

NICOLE JANZ

University of Cambridge

Reproducibility is held to be the gold standard for scientific research. The credibility of published work depends on being able to replicate the results. However, there are few incentives to conduct replication studies in political science. Replications are difficult to conduct, time-consuming, and hard to publish because of a presumed lack of originality. This article sees a solution in a profound change in graduate teaching. Universities should introduce replications as class assignments in methods training or invest in new stand-alone replication workshops to establish a culture of replication and reproducibility. This article will

Why should you replicate?

Learn Statistics

- Real life data
- Author decisions
- Bugs included
- More fun than textbook

Reproducibility routine

- When are published results really reproducible?

Publish

- Add value
- Publish faster

Use terminology accepted in **your** field

Political Science (see King 2003)

Duplication	Replication
Verify research results	Test the robustness of the original research results
exact same data set *exact same methods*	*new data* *new models*

Practical steps in a replication study

1   Select paper

2   Access data & code

3   Identify each variable

} 2-3 weeks

4   Reproduce tables, figures

5   Compare

} 3-4 weeks

If you got to this point, you completed a **duplication.**

Practical steps in a replication study (II)

6   Add value
   - new data
   - new variables
   - new model specifications
   - theoretical contributions

4-6 weeks

7   Compare

8   Get feedback from peers

9   Journal submission

months

You now completed a full **replication!**

Comparing your results with the original study

> **Clarify with _precision_ the extent to which you were able to replicate the author's results.**
> Gary King (2006)

- Exact same data and methods: results cannot be **duplicated**

- **New** data, experiments, models, methods:
  describe **exactly** at which **step** the results changed and why

- **Different measures** of a concept can naturally yield different results

- **Different lab conditions** may lead to different results

Communicating failed replications
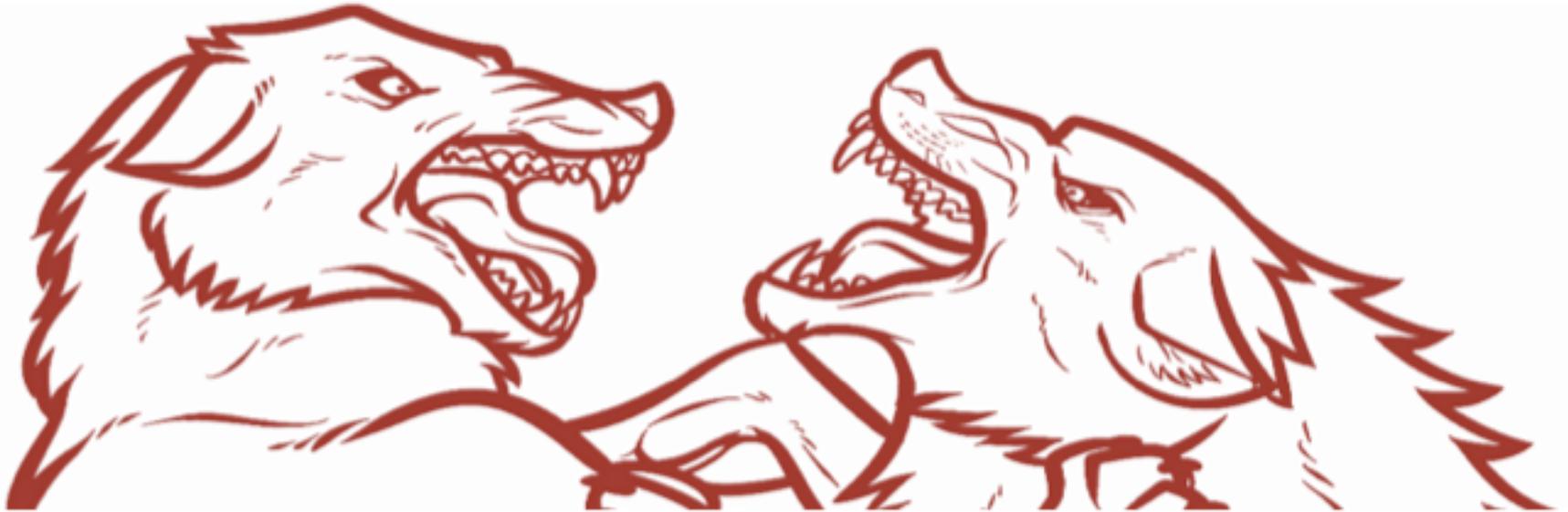
Be professional!

What replicators write

"We … find that coding errors, selective exclusion of available data, and unconventional weighting of summary statistics lead to **serious errors**" (Herndon et al. 2013)

"If we cannot even reproduce the original results using the same publicly available data, there is **no need for further commentary**." (Miller et al, 2001)

How original authors often **respond**

"less realistic", "inconsistent with the substantive literature," and "**of limited utility**" (Mansfield, Milner, and Rosendorff 2002)

"fundamentally **flawed**"
(Peffley, Knigge, and Hurwitz 2001)

"statistical, computational, and reporting errors that **invalidate its conclusions**" (Gerber and Green 2005:301).

Voting Costs and Voter Turnout in Competitive Elections

Bernard Fraga[1] and Eitan Hersh[2,*]

Our estimation approach builds off of the methodology and data used by Gomez et al. (2007) ..., adding measures of electoral closeness in order to focus on how the randomly assigned cost (rain) has a different impact depending on the electoral environment.

same way even to rain, then serious doubt should meet claims that voters will react

Questioning the Effect of Nuclear Weapons on Conflict

Mark S. Bell[1] and Nicholas L. Miller[1]

… we analyze a dyad-year data set (used by Rauchhaus 2009) to examine whether existing findings on the effect of symmetric nuclear weapons possession on conflict are robust to the improvements noted above. We find that once pre-nuclear dyadic conflict is controlled for, symmetric nuclear dyads are not more likely to experience low-level conflict.

Can inflation expectations be measured using commodity futures prices?

Rasheed Saleuddin [a,c,*], D'Maris Coffman [b]

[a] West Face Capital, Canada
[b] The Bartlett, University College London, London, UK
[c] University College London, London, UK

ABSTRACT

This paper reexamines the use of US commodity futures price data to show that the US deflation of 1929–1932 was at best no more than partially anticipated by economic actors. By focusing on the expected real interest rate, previous studies provide some empirical support for explanations of the Great Depression that are not exclusively monetary in nature. However, these studies did not consider the context and the market microstructures from which the data was sourced. Our analysis suggests that agricultural markets adjusted to deflationary expectations by the end of 1930. Evidence from commodities futures markets, such as the Chicago Board of Trade, therefore should not be used to critique the Keynesian challenge to the classical monetarist explanation of the Great Depression.

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1. Introduction

In economics, there remains a significant contro... causes of the length and depth of the Great Depress... the role, if any, of monetary policy. On one... side, Friedman and Schwartz (1963) argue for a stri... cause. Other authors, while agreeing partially with th... point to other important transmission effects, such... banks as credit information holders (e.g. Bernanke, ... 1933). Finally, there are those, mostly Keynesians, ... monetarist explanation, and focus on the role of secu... Temin, 1976). There are significant problems with a ... etarist explanation. Specifically, Friedman and Schw... on but cannot fully explain the decline the velocity of ... the period, nor are some convinced that the directi... runs from money supply declines to real output de... 1976). An additional problem with the Friedman-Sch... esis is that interest rates during the Great Depres... low to indicate the severe monetary contraction th... eral Reserve is accused of accelerating (Temin, 1976... argument, voiced by Brunner (1981) is that, as eco... expected deflation after 1929, real interest rates ex a...

* Corresponding author.
E-mail address: r.saleuddin@ucl.ac.uk (R. Saleuddin).

Near-wins and near-losses in gambling: A behavioral and facial EMG study

YIN WU,[a] ERIC van DIJK,[b] AND LUKE CLARK[a,c]

[a] Behavioural and Clinical Neuroscience Institute, Department of Psychology, University of Cambridge, Cambridge, UK
[b] Department of Social and Organizational Psychology and Leiden Institute for Brain and Cognition, Leiden University, Leiden, The Netherlands
[c] Centre for Gambling Research at UBC, Department of Psychology, University of British Columbia, Vancouver, British Columbia, Canada

Abstract

This study investigated responses to near-wins (i.e., nonwin outcomes that were close to a major win, and their counterpart, near-losses (nonwin outcomes that are proximal to a major loss) in a decision-making task, measuring (a) luck ratings, (b) adjustment of bet amount, and (c) facial muscle reactivity at zygomaticus and corrugator sites. Compared to full-misses, near-wins decreased self-perceived luck and near-losses increased self-perceived luck, consistent with the effects of upward versus downward counterfactual thinking, respectively. Wins and losses both increased zygomaticus reactivity, and losses selectively enhanced corrugator reactivity. Near-wins heightened zygomaticus activity, but did not affect corrugator activity, thus showing a similar response pattern to actual wins. There were no significant facial EMG effects of near-losses. We infer that near-wins engender some appetitive processing, despite their objective nonwin status.

Descriptors: Electromyography, Risk taking, Cognitive distortion, Near-miss, Gambling

Gambling is a widespread form of entertainment where a monetary wager is placed upon the uncertain prospect of a larger monetary win. Its allure can provide insight into the psychological mechanisms of human decision making. Previous research has shown that near-wins—nonwin outcomes that are proximal to a jackpot—foster persistent play (Côté, Caron, Aubert, Desrochers, & Ladouceur, 2003; Kassinove & Schare, 2001) and increase motivational ratings (Clark, Lawrence, Astley-Jones, & Gray, 2009). Slot machine near-wins were perceived as being "closer" to wins than to losses (Dymond et al., 2014). Using functional magnetic resonance imaging, near-wins were also found to increase neural signal in brain reward circuitry that overlapped with the jackpot wins (Chase & Clark, 2010; Clark et al., 2009). Nevertheless, near-wins also have a negative emotional component; for example, they are rated as significantly less pleasant than full-miss outcomes (Clark, 2010; Clark et al., 2009, 2013; Qi, Ding, Song, & Yang, 2011).

Psychophysiology may provide a useful tool for further characterizing the bivalent emotional response to these events. Past work has shown that near-wins increase electrodermal activity (EDA) and heart rate acceleration, in comparison to full-miss outcomes (Clark, Crooks, Clarke, Aitken, & Dunn, 2012; Clark et al., 2013; Dixon et al., 2011). EDA is a sensitive marker of physiological arousal that responds to both aversive and appetitive stimuli, and thus offers limited valence specificity (Dawson, Schell, & Filion, 2007; Lobbestael, Arntz, & Wiers, 2008). Phasic heart rate changes do show some differences by valence (e.g., Bradley, Codispoti, Cuthbert, & Lang, 2001), but this is a complex multiphasic response that also varies across individuals (Hodes, Cook, & Lang, 1985). Facial muscle activity offers an alternative probe of stimulus-evoked emotional reactivity with superior valence differentiation, with zygomaticus activity (recorded on the cheek) linked to appetitive processing, and corrugator supercilii activity (recorded on the eyebrow) scaling with aversive processing (Cacioppo, Petty, Losch, & Kim, 1986; Lang, Greenwald, Bradley, & Hamm, 1993). The present study employed facial electromyography (EMG) at these two sites to better decompose the bivalent emotional nature of gambling "near" events.

Little attention has been paid to the natural counterpart to the near-win, the "near-loss." In a decision with the possibility of losing money, what happens if you discover that you narrowly missed a major loss? While these events are less ubiquitous in gambling behavior, they do occur across many areas of day-to-day decision making, for example, when we narrowly miss an accident, or traffic jam, and they have received some attention in occupational psychology. For example, narrowly avoiding a great disaster lowered the future perceived risk of that event occurring, and increased risky choice (Dillon & Tinsley, 2008). The present study

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Information Spillovers: Another Look at Experimental Estimates of Legislator Responsiveness

Alexander Coppock*

Abstract

A field experiment carried out by Butler and Nickerson (Butler, D. M., and Nickerson, D. W. (2011). Can learning constituency opinion affect how legislators vote? Results from a field experiment. *Quarterly Journal of Political Science* 6, 55–83) shows that New Mexico legislators changed their voting decisions upon receiving reports of their constituents' preferences. The analysis of the experiment did not account for the possibility that legislators may share information, potentially resulting in spillover effects. Working within the analytic framework proposed by Bower... and indirect treatm... to be twice as large...

Keywords: Field exper...

INTRODUCTIO...

Butler and Nickers... testing the responsi... previous studies o... opinion and legisla... similarity of prefere... other possible expla... the effect of *learning*... providing some legi... The headline findin... behavior upon acqu...

The estimates of... on an assumption o...

The author is grateful to... Dolan, Albert Fang, and... Butler and David Nicker...
*Columbia University, N...

Questioning the Effect of Nuclear Weapons on Conflict

Mark S. Bell[1] and Nicholas L. Miller[1]

Abstract

We examine the effect of nuclear weapons on interstate conflict. Using more appropriate methodologies than have previously been used, we find that dyads in which both states possess nuclear weapons are not significantly less likely to fight wars, nor are they significantly more or less belligerent at low levels of conflict. This stands in contrast to previous work, which suggests nuclear dyads are some 2.7 million times less likely to fight wars. We additionally find that dyads in which one state possesses nuclear weapons are more prone to low-level conflict (but not more prone to war). This appears to be because nuclear-armed states expand their interests after nuclear acquisition rather than because nuclear weapons provide a shield behind which states can aggress against more powerful conventional-armed states. This calls into question conventional wisdom on the impact of nuclear weapons and has policy implications for the impact of nuclear proliferation.

Keywords

What effect do nuclear weapons have on interstate conflict behavior? Do nuclear weapons bolster the defense, deterring aggression and making states more secure? Or do nuclear weapons embolden the states that possess them, leading to conflicts that

[1] Department of Political Science, Massachusetts Institute of Technology, Cambridge, MA, USA

Corresponding Author:
Mark S. Bell, Department of Political Science, Massachusetts Institute of Technology, Cambridge, MA 02139, USA.
Email: markbell@mit.edu

Transparent
workflows

4 Steps to Transparency

Fixed Folder Structure

Comment your code

Clear methods section in paper

Share materials

Fixed folder structure

Decide on a template structure for each project

Never alter raw data

Main

Readme.txt
Paper

/Data

/Code

On the fly….
/Results
/Materials

FIGURE 4.1: Example Research Project File Tree
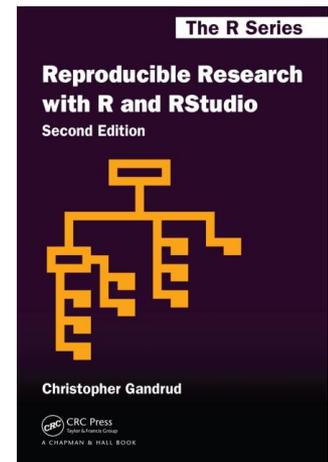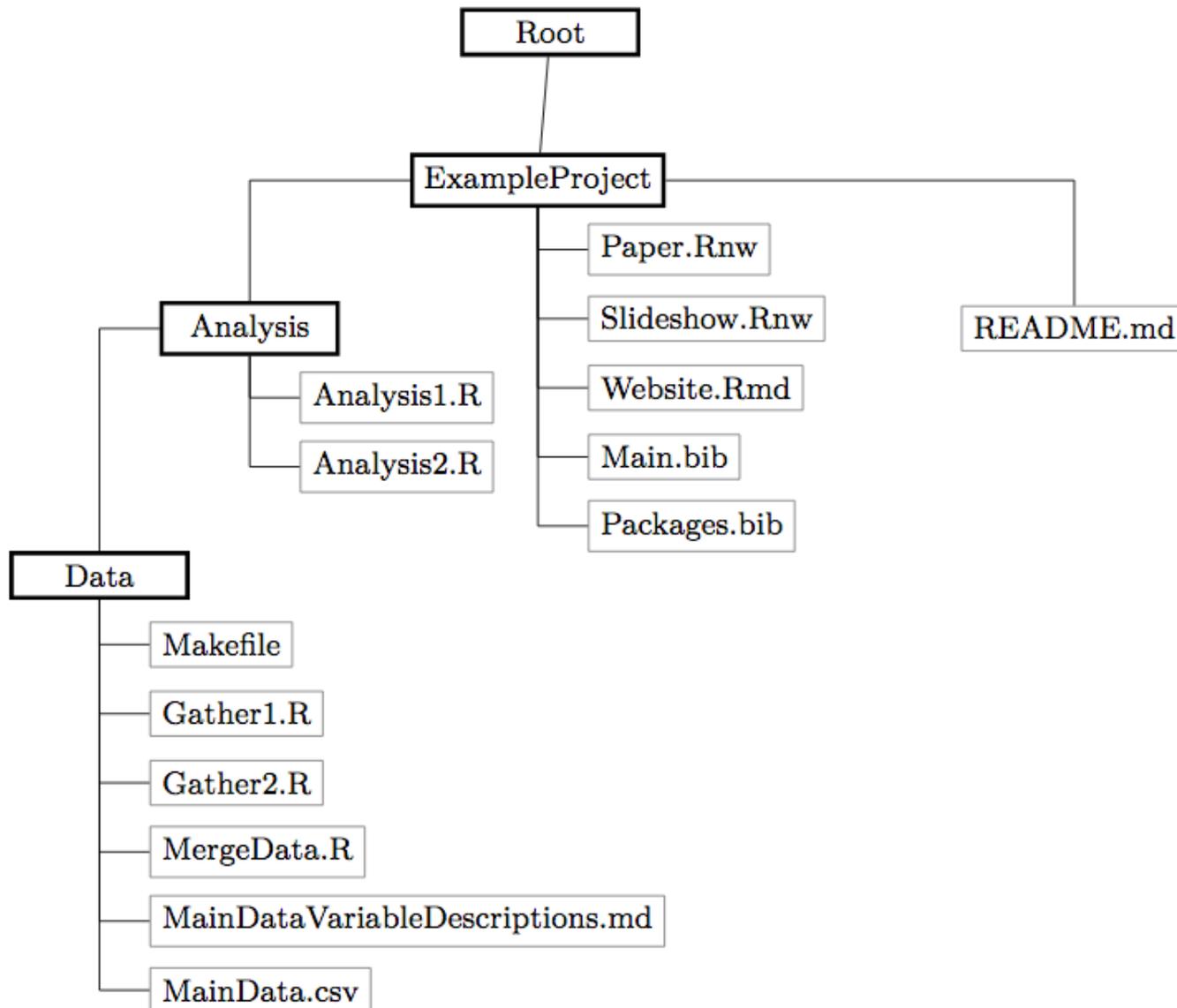
Comment your code

loading data

variable transformation

merging tables

models for table 1

Output

```
doedit "Z:\M14160\assessment\self data\data\stata operation-day 2-binary\EQ-I
> Q-command-LR.do"

. do "C:\Users\lpxwh\AppData\Local\Temp\STD02000000.tmp"

. use EQIQbinaryLR.dta,clear

.

end of do-file

. do "C:\Users\lpxwh\AppData\Local\Temp\STD02000000.tmp"

. logit BEQ2 gender representative age IQ

Iteration 0:     log likelihood = -157.28934
Iteration 1:     log likelihood = -155.59433
Iteration 2:     log likelihood = -155.59392
Iteration 3:     log likelihood = -155.59392
```

Logistic regression	Number of obs	=	227
	LR chi2(4)	=	3.39
	Prob > chi2	=	0.4947
Log likelihood = -155.59392	Pseudo R2	=	0.0108

```r
###########################################
# load human rights data set and select only non-OECD countries;
# call the subset "t.nono"
###########################################

load("replicationdata.Rdata") # this data file needs to be in the folder of your working directory
t.nono <- replicationdata[replicationdata$oecd==0, ] # select developing nations only (non-OECD)
t.nono <- droplevels(t.nono) # drop the unused levels (http://stackoverflow.com/questions/17217951/how-can-i-drop-
 unused-levels-from-a-data-frame)




###########################################
# Main models for paper
..
# Creating table "Total FDI and Personal Integrity Rights Protection (1983-2010)" in the main part of the paper ####
# US FDI ologit with robust standard errors clustered by country
CIRI.logit.LDV <- lrm(CIRI_PHYSINT ~ Lag_lognonnegUS_fdi_totalpGDP + Lag_logtrade + Lag_logGDPpc + Lag_logpopulation +
 Lag_polity2 + Lag_confl + Lag_CIRI_PHYSINT,data=data.CIRI.PHY.LDV,x=TRUE, y=TRUE)
CIRI.logit.LDV.corr <- robcov(CIRI.logit.LDV,data.CIRI.PHY.LDV$country) #robust errors clustered by country


PTS.logit.LDV <- lrm(PTS_ai_reversed ~ Lag_lognonnegUS_fdi_totalpGDP + Lag_logtrade + Lag_logGDPpc + Lag_logpopulation
 + Lag_polity2 + Lag_confl + Lag_PTS_ai_reversed,data=data.PTS.LDV,x=TRUE, y=TRUE)
PTS.logit.LDV.corr <- robcov(PTS.logit.LDV,data.PTS.LDV$country)




###########################################
#Creating "Correlation matrix (I) to (III)
###########################################
corstars <- function(x){
  x <- as.matrix(x)
  R <- rcorr(x, type="spearman")$r
  p <- rcorr(x)$P
  # n <- rcorr(x)$n
  mystars <- ifelse(p < .01, "***", ifelse(p < .05, "** ", ifelse(p < .1, "*  ", "   ")))
  R <- format(round(R, 3))
  Rnew <- matrix(paste(R, mystars, sep=""), ncol=ncol(x)) #removed n here
```

Editor — journal.pmed.1001789.s020.RNW

```
148
149     First we load the data and R packages. The data file is part of the pap
        also made a copy available online.
150  <<message=FALSE,tidy=FALSE>>=
151  library(survival)
152  library(kernlab)
153  library(rms)
154  library(spatstat)
155  library(RColorBrewer)
156  library(gplots)
157
158  ## load data file from local copy or from URL
159  if (file.exists("Schwarz2015-supplement.Rdata")){
160    load("Schwarz2015-supplement.Rdata")
161    cat("Data loaded from local copy")
162  } else {
163    load(url("http://www.markowetzlab.org/supplements/Schwarz2015-supplem
164    cat("Data loaded from URL") }
165  @
166
167     The first object in the .Rdata file is a table \texttt{D} with patient
168  <<message=FALSE>>=
169  D
170  attach(D)
171  @
172
173  <<echo=FALSE,message=FALSE>>=
174  ## Print the data table in LaTeX format for inclusion into main mansucr
175  library(xtable)
176  print(xtable(D),file="TableOverview.tex")
177  @
178
179     Rownames correspond to sample identifiers. Columns indicate the patient
        t (\texttt{Nr}), as well as values for temporal heterogeneity (\texttt{
        index (\texttt{CE}), overall survival in days (\texttt{OS}), progressio
        (\texttt{PFS}) and indicators for survival (\texttt{dead}) and progress
        covariates for age, stage (ordered factor), residual disease after debu
        l}, ordered factor) and the number of samples per patient (\texttt{N}).
180
```

153:13   Chunk 3   R Sweave

PDF preview:

1 Clinical data

1.1 Data overview

First we load the data and R packages. The data file is part of the paper supplement, and we have also made a copy available online.

```
library(survival)
library(kernlab)
library(rms)
library(spatstat)
library(RColorBrewer)
library(gplots)

## load data file from local copy or from URL
if (file.exists("Schwarz2015-supplement.Rdata")){
        load("Schwarz2015-supplement.Rdata")
        cat("Data loaded from local copy")
} else {
        load(url("http://www.markowetzlab.org/supplements/Schwarz2015-supplement.Rdata"))
        cat("Data loaded from URL") }

## Data loaded from URL
```

The first object in the .Rdata file is a table D with patient information:

```
D
```

```
##          Nr       TH        CE   OS  PFS dead prog  Hist Age Stage residual
## OV03-01   1 4.730231 1.2605274  511  271    1    1 HGSOC  47    IV     <1cm
## OV03-02   2       NA 0.7105901  977  363    1    1 HGSOC  62    IV     <1cm
## OV03-04   3 3.735366 1.2432629  209  153    1    1   HGS  69    IV     >1cm
## OV03-07   4       NA        NA  625  616    1    1 HGSOC  48  IIIC      Nil
## OV03-08   5 3.801712 1.4705531  547  303    1    1 HGSOC  63    IV     <1cm
## OV03-10   6 6.588895 0.7298828  744  298    1    1 HGSOC  59    IV     <NA>
## OV03-13   7 3.000290 0.6836961 1587  358    1    1 HGSOC  61    IV     >1cm
## OV03-17   8 3.423112 2.2357817  889  373    1    1 HGSOC  51  IIIC     <1cm
## OV03-20   9 4.487828 0.6494353 1278  563    1    1 HGSOC  71    IV     >1cm
## OV03-21  10 4.719848 0.8686309 1139  303    1    1 HGSOC  60  IIIC     >1cm
## OV03-22  11 5.702720 0.4834086 1556  382    1    1 HGSOC  58  IIIC     <1cm
## OV03-23  12       NA        NA 1565  534    1    1 HGSOC  60  IIIC      Nil
## OV03-24  NA       NA        NA  376  375    1    1 HGSOC  53  IIIC     >1cm
## OV03-25  13       NA 0.6215297 1166  776    1    1 HGSOC  57  IIIC     >1cm
## OV04-20  14 4.621984 0.6083119 1513  601    0    1 HGSOC  63  IIIC      Nil
## OV04-21  15       NA 0.7412773  706  332    1    1 HGSOC  54    IV      Nil
## OV04-27  16       NA        NA 1408 1408    0    0 HGSOC  50  IIIC      Nil
## OV04-30  17       NA 0.8591205  849  293    1    1 HGSOC  60  IIIC     >1cm
##           N
```

Methods section in paper

Describe methods clearly

Name exact models with citations for statistical choices

Footnote should contain software versions

If space is restricted: Appendix

Models

For the ordered categorical outcome variables, CIRI and PTS, I estimate an ordered logit model with robust standard errors clustered on country to correct for heteroskedasticity. For the continuous outcome variable, the Latent Human Rights Scores by Fariss, I employ ordinary least squares (OLS) with panel-corrected standard errors (PCSE).[17] In both models, I include a lagged dependent variable ("Past") since countries that repressed their citizens in the past are more likely to use repressive acts in the future (Gurr 1988). A lagged dependent variable also corrects the serial correlation (Beck and Katz 1995, 2009).

I include a one-year lag between the outcome and predictors to allow the effect of FDI stock to spread in the country. This means that the accumulated FDI in a country in a given year is expected to correlate with rights protection in the following year, which establishes a time order and suggests a direction of causality from FDI($t-1$) to rights protection(t).

The data set ranges from 1983 to 2010 and includes up to 121 non-OECD countries. The selection of these cases is limited to countries with available data on personal integrity rights and FDI measures (see a list of all countries in the online appendix). Two main sets of models are estimated: The first set of models includes total FDI to compare my results with previous work, while the second set of models replaces total FDI with investment in 10 industry sectors.

---

17. For the ordered logit models, I use the functions lrm() and robcov() from the R package "rms" Version 4.3–0, which produces the same results as the corresponding STATA command ologit with the cluster() modification (STATA Version 13.0). For OLS with PCSE, I use the functions plm() and vcovBK() from the R package "plm" Version 1.3.1, which produces the same results as the STATA command xtpcse with the pairwise specification.

Share your materials

Readme file

Data, code, variable codebook

Information to reconstruct data from original sources

Data sharing platforms

Github

UK Data Service

OSF
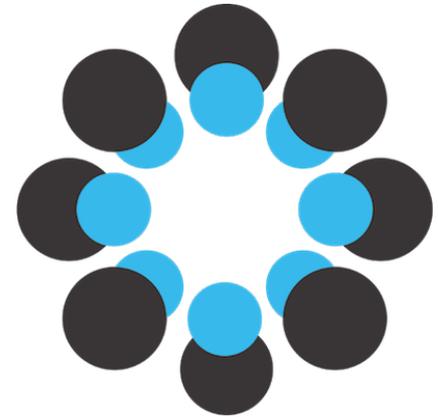
ICPSR
Inter-university
Consortium for Political
and Social Research

HARVARD
Dataverse

CISER CORNELL INSTITUTE for
Social and Economic Research

HARVARD
Dataverse

Replication Data for: "Foreign Direct Investment and Repression: An Analysis Across Industry Sectors" `Version 1.0`

Janz, Nicole, 2017, "Replication Data for: "Foreign Direct Investment and Repression: An Analysis Across Industry Sectors"", https://doi.org/10.7910/DVN/TT7NZJ, Harvard Dataverse, V1, UNF:6:HfNaxyecbqKGLOf0hD3cDw==

≡ Cite Dataset ▾

ℹ Learn about Data Citation Standards.

Description	The impact of foreign direct investment (FDI) on repression in developing nations is still disputed. Some argue that FDI improves economic development and exports human rights values. Others criticize the exploitation of cheap labor and resources, which may lead to tensions and government oppression. Previous studies have employed aggregate FDI data with conflicting results. Alternatively, I propose that the effects depend on what kind of FDI enters a country. I build a sectoral framework to discuss how skills and technology levels, as well as the motivation for FDI, can mediate the impact. I then examine the link in a panel data analysis (1983–2010) in 121 countries, integrating sectoral FDI in several resource, manufacturing, and service industries. The results show that investment in high-skilled and high-tech sectors has positive effects. The results are robust across several measures for repression, and when accounting for sector size, regional and time effects.
Subject	Social Sciences
Keyword	human rights, foreign direct investment, repression, sectors

Files | Metadata | Terms | Versions

Code

4 Files

JHR_Replication.R
R Syntax - 316.3 KB - Jun 5, 2017 - 7 Downloads
MD5: b38d4241da685f4d3c42b7bbfde8a486

JHR_Replication_Notes.pdf
Adobe PDF - 70.0 KB - Jun 5, 2017 - 6 Downloads
MD5: 10e97b3ebad5ea825e70559bb58e6c01

Data

replicationdata.tab
Tabular Data - 1.8 MB - Jun 5, 2017 - 20 Downloads
49 Variables, 5568 Observations - UNF:6:HfNaxyecbqKGLOf0hD3cDw==

Variables

Variable_Codebook.xlsx
MS Excel (XLSX) - 38.0 KB - Jun 5, 2017 - 17 Downloads
MD5: 60199b9b4e380bd8b9c647eeaac9daf1

Replication Notes for
Foreign Direct Investment and Repression:
An Analysis Across Industry Sectors

Nicole Janz *University of Nottingham*

School of Politics and International Relations

University Park

Nottingham, NG7 2RD

Email: nicole.janz@nottingham.ac.uk

September 14, 2016

Instructions for Replication

- First, load the data. This is a panel data set with country-years. Each table or figure is identified by its header as in the article or online appendix. If you are looking for a specific table, search the (admittedly long) Rscript for that particular heading.

- Run the code chunk by chunk. Many variables are created 'on the go' and re-used at a later point. Make sure to run the code in the same order, and run all the code even if you only want to replicate e.g. the last table.

- In order to preserve the largest possible sample size, I have created data sets for each model separately (based on the original table that you have loaded in R). This way, depending on the particular model, slightly different country-years are included. Make sure to create all these data sets (again, in order of the code) to run the models.

Citation

If you work with the data for your own study (replication or original work based on these data), please cite my article as well as the data set. It would be great if you could let me know about your results. A suitable citation of the data is provided by Dataverse where you downloaded the data.

Contact

Please contact me if you have any questions about the study or replication files at: nicole.janz@nottingham.ac.uk or nicolejanz@gmail.com. Any feedback on your replication attempts is more than welcome.

Acknowledgements

Gu Li and Sergio Cuesta have verified that the provided Rscript produces the tables and figures for the study. All errors remain my own.

Data transparency	Analytic transparency	Production transparency
Providing full access to data itself	Information about data analysis	Process of data collection

Quantitative research

Upload datasets used for analysis

Code for models (SPSS, STATA, R)

Good methods section in paper

Provide or describe raw data & variable codings

(see Lupia/Elman 2014; Moravcsik 2014)

Five Selfish Reasons to Share Data

Quality	Establish trust & credibility in your work
Reputation	Be known as a transparent researcher in your field
Citation	Your data will be cited
Consistency	Transparent workflow makes it easier to re-use your own data later
Practicality	Meet journal & funder standards

(Markowetz 2015)

Photo: Sam Mather

Thank you!

✉ nicole.janz@nottingham.ac.uk

🐦 @polscireplicate

Ⓦ Political Science Replication Blog

Data transparency	Analytic transparency	Production transparency
Providing full access to data itself	**Information about data analysis**	**Process of data collection**

Qualitative research

Provide (partial)

- Interview transcripts
- Field notes
- Videos…

Describe <u>which</u> evidence supports <u>which</u> claims

Discursive footnotes / supplement

Explain how data were collected:

- Interviewee selection
- Participants
- Documents…

Literature on Replication

- King, Gary. (2006). **How to Write a Publishable Paper as a Class Project**,copy at: http://gking.harvard.edu/papers

- Janz, N. (2015) **Bringing the Gold Standard Into the Class Room: Replication in University Teaching**, International Studies Perspectives, Article first published online: 9 March 2015. Copy at: http://tinyurl.com/q2qnrvn

- Brandt et al. (2014) **The Replication Recipe: What makes for a convincing replication?** Journal of Experimental Social Psychology, Vol 50, pp. 217-224. Copy at: http://tinyurl.com/poe474k

- Markowetz, Florian (2015), **Five selfish reasons to work reproducibly**. Genome Biology 16:274.

Literature on Transparent Workflow

- Christensen, Garret (2016). **Manual of Best Practices in Transparent Social Science Research** https://github.com/garretchristensen/BestPracticesManual

- Open Science Framework. **Transparency and Openness Promotion (TOP) Guidelines**. https://cos.io/top/

- **TIER Documentation Protocol** https://www.haverford.edu/project-tier/protocol-v2

- Janz, Nicole & Figueiredo, Dalson (2017, March 13). **Workshop: The Gold Standard of Reproducible Research**. Retrieved from https://osf.io/2fqnw/ (slides, handouts)

Literature on Political Science Debate

Moravcsik, A. (2014). **Transparency: The Revolution in Qualitative Research.** *PS: Political Science & Politics*, 47(1), 48-53. doi:10.1017/S1049096513001789

Lupia, A., & Elman, C. (2014). **Openness in political science: Data access and research transparency.** PS - Political Science and Politics, 47(1), 19-42. doi: 10.1017/S1049096513001716