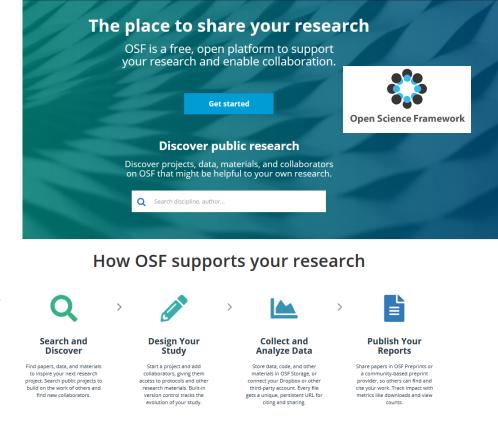
The Open Science Framework (OSF): An easy and intuitive approach to share research materials and data ... and more

David F. Urschler



#### Agenda

- How did I get into the OSF?
- What can you do with the OSF?
- What I have used the OSF for
- Things that I have learned the hard way
- Questions





#### How did I get into the OSF





## How did I get into the OSF

#### **RESEARCH ARTICLE SUMMARY**

#### PSYCHOLOGY

## Estimating the reproducibility of psychological science

**Open Science Collaboration\*** 

**INTRODUCTION:** Reproducibility is a defining feature of science, but the extent to which it characterizes current research is unknown. Scientific claims should not gain credence because of the status or authority of their originator but by the replicability of their supporting evidence. Even research of exemplary quality may have irreproducible empirical findings because of random or systematic error.

**RATIONALE:** There is concern about the rate and predictors of reproducibility, but limited evidence. Potentially problematic practices include selective reporting, selective analysis, and insufficient specification of the conditions necessary or sufficient to obtain the results. Direct viously observed finding and is the means of establishing reproducibility of a finding with new data. We conducted a large-scale, collaborative effort to obtain an initial estimate of the reproducibility of psychological science.

**RESULTS:** We conducted replications of 100 experimental and correlational studies published in three psychology journals using high-powered designs and original materials when available. There is no single standard for evaluating replication success. Here, we evaluated reproducibility using significance and *P* values, effect sizes, subjective assessments of replication teams, and meta-analysis of effect sizes ( $M_r = 0.197$ , SD = 0.257) was half the mag-

substantial decline. Ninety-seven percent of original studies had significant results (P < .05). Thirty-six percent of replications had signifi-

#### ON OUR WEB SITE

Read the full article at http://dx.doi. org/10.1126/ science.aac4716 nal effect sizes were in the 95% confidence interval of the replication effect size; 39% of effects were subjectively rated to have replicated the original re-

cant results: 47% of origi-

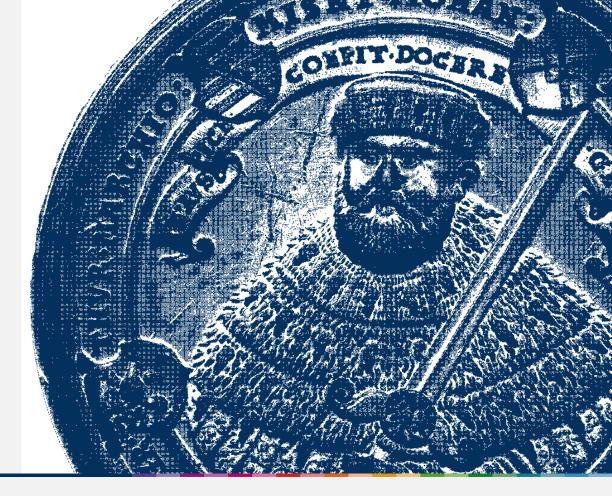
sult; and if no bias in original results is assumed, combining original and replication results left 68% with statistically significant effects. Correlational tests suggest that replication success was better predicted by the strength of original evidence than by characteristics of the original and replication teams.

**CONCLUSION:** No single indicator sufficiently describes replication success, and the five indicators examined here are not the only ways to evaluate reproducibility. Nonetheless, collectively these results offer a clear conclusion: A large portion of replications produced weaker evidence for the original findings despite using materials provided by the original authors, review in advance for methodological fidelity, and high statistical power to detect the original effect sizes. Moreover, correlational evidence is consistent with the conclusion that

# VIEW THE BADGES:



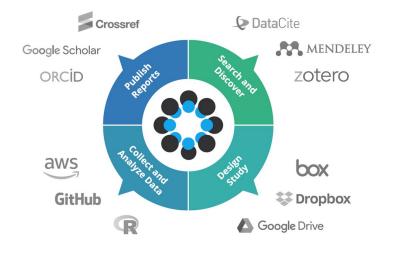
## What can you do?



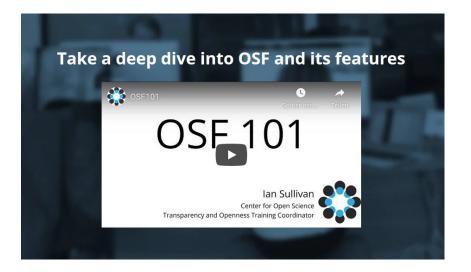


David F. Urschler 5 / 32

#### What can you do with the OSF? - <u>https://osf.io/</u>







https://www.cos.io/our-products/osf



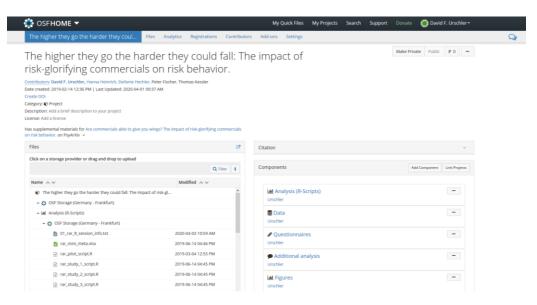
David F. Urschler 6 / 32

- Organize your projects
- Document your process
- Version control
- Register your work
- Share your work
- Project analytics



#### Organize your projects

- Structured approach folder structure
- Control access by collaborators
- Interlink projects fork structure
- Add preprints





Document your process

• Project wiki

SFHOME 🔻	My Quick Files My Projects Search Support								
IRSP EmbrWave and Social Thermoregu	Files Wiki Analytics Registrations Contributors Add-ons Settings								
Home									
+ New <	Wiki Version: (Current) Richard								
- 🝃 Project Wiki Pages	IDED Fork allows Manuscript								
🗅 Home	IRSP EmbrWave Manuscript Proposal to IRSP for special issue								
🕒 🖕 Component Wiki Pages	es Overview of procedure (possibly slightly outdated see materials document for exact wording)								
+ O TUTORIAL: Installing the study/using the Emb	List of collaborating teams List/records for EmbrWave units								
+ O Laboratory Log and Digital Study Materials	We track planned contributions from each collaborator in our CRediT sheet, as well as authorship order (yet-to-be-finalized).								
+ O Papers (confidential)	original irsp text Exploratory Reports (ERs) is a format for empirical submissions that tend to address relatively open res								
+ O Data Collection: Universite Grenoble Alpes	predictions of hypotheses. These studies are abductive (=often starting with an observation) and inductive/hypothesis-generati This means that authors can do as many analyses as they would like on a dataset, as long as they openly report it. These analys								
+ O Data Collection: University of Economics and	predictions, and in some cases, these predictions can and should already be tested. At this stage, we are limiting the ER to two validation (We include machine learning as a separate ER type, even though it often includes cross-validation (but not always, a forests or autoencoding)).								
	Cross-validation can be done using more traditional, inferential statistics, machine learning, or another analysis approach. For expect authors to submit a results-bilind submission for the validation part of their manuscript. At least one validation set is rec encouraged. The analyses for the validation sets will be bilinded to reduce publication bias. Authors are also asked not to analys submission. For those unfamiliar with exploratory research, we recommend reading Yarkoni and Westfall, viewing Rick Klein's p Klein made available. These tutorials include analysis scripts for cross-validation. An analysis script for a type of supervised man forests Japplied in social psychology is available from Ijzerman et al. (2018). Typical exploratory reports include multiple tests an hypothesis-testing.								



Document your process

• Keep notes and project logs

• Who took action

Recent Activity	
David F. Urschler checked in file rar_study_1_raw.csv to Data	2020-04-25 03:36 PM
David F. Urschler checked out file rar_study_1_raw.csv from Data	2020-04-25 03:33 PM
David F. Urschler moved 02_rar_coding_sheet.pdf in OSF Storage to 02_rar_coding_sheet.pdf	odf in OSF Storage in 2020-04-03 11:08 AM
David F. Urschler made Data public	2019-03-19 01:44 PM
David F. Urschler removed an anonymous view-only link to Data	2019-03-19 11:57 AM
David F. Urschler added file rar_study_3_ready.csv to OSF Storage in Data	2019-03-05 06:51 PM
< 1 2 3 4 5 >	



#### **Version control**

#### View

Wiki Version: (Current) Richard A. Klein: 2020-03-04 16:11:27+00:00 UTC 👻

#### Study setup

#### Prerequisites:

- · Computer running Windows 10 (note: if you have psychopy installed, it sometimes conflicts and needs uninstalled)
- USB BLE dongle plugged in to computer (if this doesn't work, try installing the firmware from the company)
- Admin access (only needed for installation)
- EmbrWave device (optional can test the script itself prior to receiving the EmbrWave)

#### Software setup:

First you'll need to install specifically Python 3.7.5 (not a newer or older version): https://www.python.org/downloads/release/python-375/. During installation, be sure to check the option to "add python to PATH".

Then, follow the below instructions:

#### Installing script:

- 1. Download the repository here as a .zip file: https://github.com/aforren1/embrwave\_multisite/
- 2. Unzip that file to some permanent location on your hard drive (it will store the data, so it shouldn't be anywhere that gets deleted).
- 3. Open a command prompt as an admin. (click the windows button, type end, then right-click on "command prompt" and run as admin).
- 4. In the command prompt window, navigate to the folder where you unzipped the embrwave\_multisite-master archive (see https://www.computerhope.com /issues/chusedos.htm for commands to do that)
- 5. Once the command prompt is "in" the directory, type pip install . This should install all prerequisites.
- 6. Type python main.py to start the study.



David F. Urschler 11 / 32

#### Version control

🍀 osf <b>home &lt;</b>	My Quid	ck Files My Projects Search Support Donate 🌐 David F. Urschler 🕇
Analysis (R-Scripts) Files Wiki	analytics Registrations Contributors Add-ons Settings	
rar_study_3_script.R (Versio	n: 2)	Check out Delete Download Share Toggle view: View Edit Revisions
Q Filter		^
Lill Analysis (R-Scripts)	#### RAR - Study 3 #### #*## #*##	
– 🏟 OSF Storage (Germany - Frankfurt)	#~## #%###%###%###%###%###%###%###%###%#	
01_rar_R_session_info.txt		
rar_mini_meta.xlsx	#*###*###*###*###*###*###*###*###*###*	
rar_pilot_script.R	#### Used packages #### #*## #*##	
rar_study_1_script.R	#*###*###*###*###*###*###*###*###*###*###*###*##	
rar_study_2_script.R	<pre>if(!require(effsize)){install.packages('effsize')} if('envire(envire)){install.packages('effsize')}</pre>	
in rar_study_3_script.R	<pre>if(!require(ggplot2))(install.packages('ggplot2')) if(!require(httr))(install.packages('httr')) if(!require(jmv))(install.packages('jmv'))</pre>	
rar_study_3_script_preps.R	<pre>if(!require(MBESS)){install.packages('MBESS')} if(!require(outliers)){install.packages('outliers')} if(!require(psych)){install.packages('psych')}</pre>	

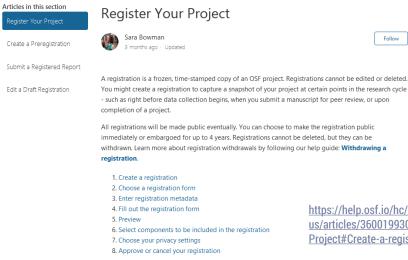


Register your work

- A registration is a frozen, time-stamped copy of an OSF project
- Registrations cannot be edited or deleted
- All registrations will be made public eventually



#### Register your work



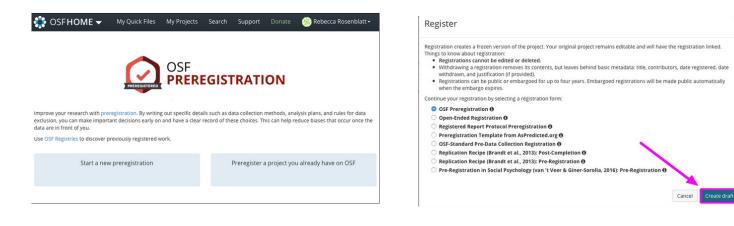
https://help.osf.io/hc/enus/articles/360019930893-Register-Your-Project#Create-a-registration

Follow



David F. Urschler 14/32

#### Register your work – Preregister your hypothesis and analyses



https://osf.io/prereg/



#### **Register your work – Preregister your hypothesis and analyses**

	OSF REGISTRIES	.	۹	Help	Donate	<b>8</b>
	ronmental Science > ew registr	ation				<u>P</u>
0	Metadata	Registration Metadata			Next 🗲	
	Study Information	This metadata applies only to the registration to your project.	you are creating, and will not be applied		Auto-save a few second	
-	Sampling Plan	Title *				
•	Variables	Environmental Science				
÷.	Analysis Plan	Description *				
ė.	Other					
ė	Review					
<			Å			
		Category				
	*	Project	V			
		Affiliated institutions				

https://osf.io/prereg/



David F. Urschler 16 / 32

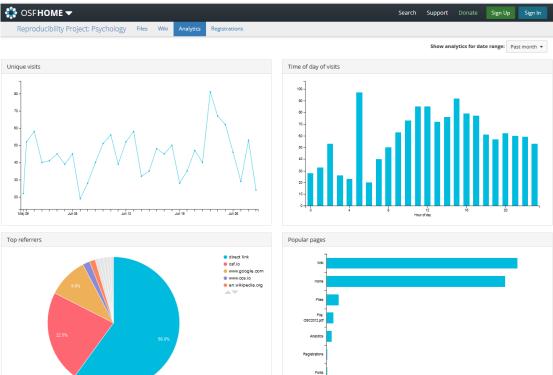
#### Share your work

- What you want
- When you want
- Fine-grained control
- Everything on OSF is private by default

View-only Links								
Create a link to share this project so those who have the link can view—but not edit—the project.								
Link Name	Shared Components	Created Date	Created By	Anonymous				
For peer review       Image: Point Peer Peer Peer Peer Peer Peer Peer Pee	<ul> <li>♀ Increasing</li> <li>▲ Analysis (R</li> <li>♥ Data</li> <li>✔ Questionn</li> <li>▲ Figures</li> </ul>	2020-04-25 04:52 PM	David F. Urschler	Yes	×			



#### **Project analytics**





David F. Urschler 18 / 32

800

900

600

1000 1100





My experiences

🍀 osfh <b>ome &lt;</b>		My Quick Fil	es My Projects Search	Support Donate 💭 David F. Urschler •	
David F. Urs	chler			Edit your profile	
Member Since Public Profile	2017-03-30 osf.io/8vz2g	Social Employme	nt Education		
391 activity points		Ð	ORCID	0000-0003-3223-4816	
391 activity points 12 projects, 5 public			Twitter	dfusocialpsy	
Public projects		Public components			
The higher they go the higher they go the higher they go the higher they go the higher the second		E Data The higher they ( behavior. / Data	the harder they could fall: The imp	bact of risk-glorifying commercials on risk	
O IRSP EmbrWave and Social Thermoregulation Klein, Rahal, Studzinska & 3 more			ևև Analysis (R-Scripts)		
Signal Open Science Get To Azevedo, Schneider, Schneider & 3	0	The higher they g behavior. / Analy Urschler	act of risk-glorifying commercials on risk		

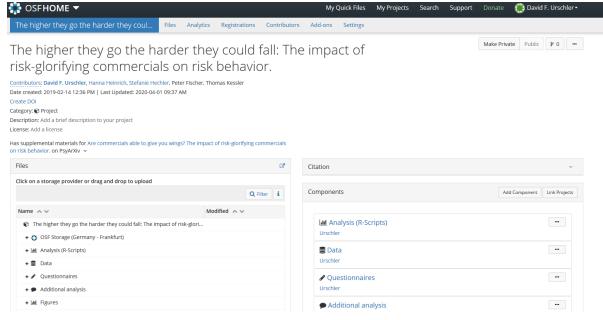


David F. Urschler 20 / 32

- Sharing data, materials, R-scripts, and pre-prints
- Pre-registering hypotheses
- Many labs collaborations
- Sharing conference materials



#### Sharing data, materials, R-scripts, and pre-prints





David F. Urschler 22 / 32

Ψ Α Χ	PsyArX	v Preprints		My Preprints Submit a Preprint Search Donate 👘 David F. Urschler +
	Q	🗙 💺 Seite: 👥 1 von 38 🚽 🕂 Automatischer Zoom 🕫	∷ ⊖ I » >	Download preprint Downloads: 190
	1		~ ©	Image: Submit to an APA-published journal (beta)
	2			Samilie o ni vi v kanisilea Jonna (octa)
	3	Manuscript accepted for publication at		Abstract
	4	PLOS One		Previous research on risk-glorifying media has provided encompassing evidence for a positive
	5	For citation please refer to the authoritative version in the journal		connection between risk-glorifying contents and (a) risk-positive emotions, (b) risk-positive cognitions and attitudes, and (c) risk-positive behavioral inclinations. Nevertheless, little
	6			evidence shows whether risk-glorifying content increases actual risk
	7	The higher they go the harder they could fall:		See more
	8	The impact of risk-glorifying commercials on risk behavior.		Supplemental Materials
	9			osf.io/rq6yj/ 🗗
	10			
	11	David F. Urschler <sup>1*</sup> , Hanna Heinrich <sup>2</sup> , Stefanie Hechler <sup>1</sup> , Peter Fischer <sup>2</sup> , & Thomas Kessler <sup>1</sup>		Preprint DOI
	12			10.31234/osf.io/b9sqj
	13		- II i	License
	14			CC-By Attribution 4.0 International
	15			
rar pr	e_apa.pdf	Download previous versions ▼	Version: 2	Disciplines
		9, 2019   Last edited: December 03, 2019		Social and Behavioral Sciences Consumer Psychology Psychology, other



## **Pre-registering hypotheses**

#### Disentangling the assumed precursors of prejudice: Personality and social identity

α

STREGISTRIES -

Overview				Contributors	
Files		Study Information	≡	Clemens Lindner, David F. U and Thomas Kessler	rschler,
Wiki		Hypotheses		Description	
Components	0	Personality measures (RWA, SDO, BIG-5) are highly consistent (corre all three conditions: RWA1 = RWA2 = RWA3; SDO1 = SDO2 = SDO3; B BIG-5-3		We want to show an intraind variation in expressed preju- depending on the salience (a	idices,
Links	0			of particular group informat	
Analytics		Pen vari	with	differen social identities. In s psychological research there	
		con	h liberal	consensus on the fact, that i	
Comments	0	prej	nsional	are either bigoted or toleran	nt, which
		(RW	rience to		
		bei	h		
		con		Show more <b>T</b>	
		The	prejudice	Registration type	
		pati			
		env	nantalists ational	OSF Preregistration	
		pre- ider	ational	Date registered	
		ider	ople,	May 29, 2020	
		age		May 23, 2020	
				Date created	
		A ce	erent	May 29, 2020	
		prej	young		
		реоріе		Registered from	
		Design Plan		osf.io/uzjt2	
		Design han		Category	
		Study type		Project	
		Observational Study - Data is collected from study subjects that are i	not randomly	<ul> <li>Frojecci</li> </ul>	
		assigned to a treatment. This includes surveys, "natural experiments		Registration DOI	
		discontinuity designs.		No DOI assigned	



Help

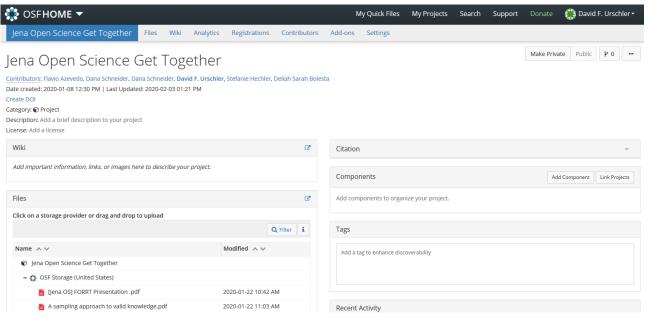
## Many labs collaborations

IRSP EmbrWave and Social Thermoregu Files	Wiki Analytics Registrations	Contr	ributors Add-ons Sett	tings				
IRSP EmbrWave and Social T Contributors: Richard A. Klein, Rima-Maria Rahal, Anna Studdinska, Da Forked from ost Jorndzig on 2019-04-09 11:27 PM Date created: 2019-04-09 11:27 PM   Last Updated: 2020-02-05 10:02. Category: O Uncategorized Description: Add a brief description to your component	avid F. Urschler, Mae Braud, Clemens Line						Public	ų
Wiki		C.	Citation					
IRSP EmbrWave Manuscript Proposal to IRSP for special issue Overview of procedure (possibly slightly outdated see materials d List of collaborating teams List/records for EmbrWave units We track planned contributions from each collaborator in our CRed to-be-finalized) original insp text Exploratory Reports (ERs) is a Read More Files Click on a storage provider or sfrag and drom to unbeat	IT sheet, as well as authorship order (yet	G	Components O TUTORIAL: Inst. Klein, Rahal, Studzinski, O Laboratory Log 21:27 UTC Campbell, Klein, Braud O Ethics Material	a & 3 more g and Digital Stu I & 1 more S		mbrWave	Add Component 19-04-09	Lini
Click on a storage provider or drag and drop to upload	Q, Filter	1	Klein, Campbell, Braud					
Name A V	Modified A V		Confi Klein, Rahal, Studzinska					
IRSP EmbrWave and Social Thermoregulation     OSF Storage (Canada - Montréal)		^	O Data Collection		enoble Alpes	5		
O TUTORIAL: Installing the study/using the EmbrWave     O Laboratory Log and Digital Study Materials			C Data Collectio	on: University o	of Economics	and Human S	ciences in	



David F. Urschler 25 / 32

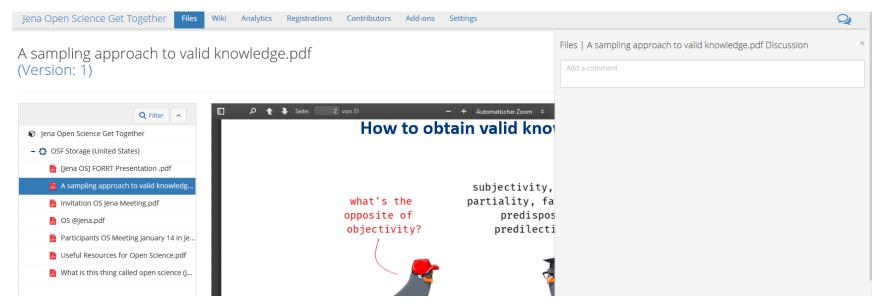
#### Sharing conference materials





David F. Urschler 26 / 32

#### Sharing conference materials

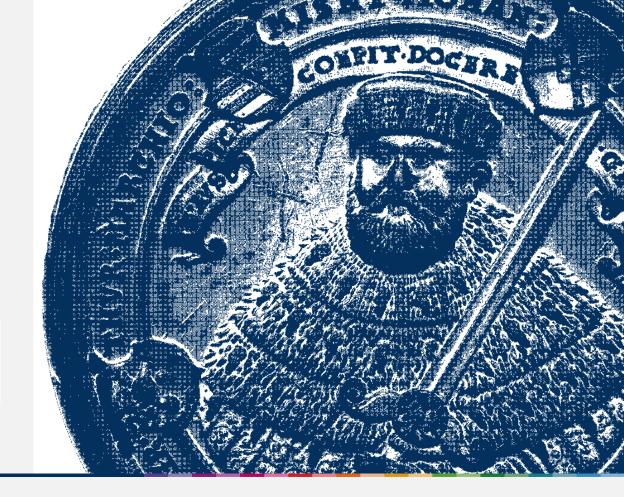




Sharing conference What conversational agents can lea		ons C	ontributors Add-ons Settings	
What conversational research? Contributors: David F. Urschler Pate created: 2015/07-01-05:05 FIG1/L2GRE dentifier: Dol 10.17605/05F.IO/UZGRE Category: O Uncategorized Description: Add a brief description to your compo License: CC-By Attribution 4.0 International		pro	social behavior	Make Private Public 🕨 0 🚥
Wiki		ď	Citation	×
-			Components	Add Component Link Projects
Files		ß	Add components to organize your project.	
Click on a storage provider or drag and drop to	o upload Q Filter	i	Tags	
Name A V O What conversational agents can learn fro	Modified A V		talk × Add a tag	









David F. Urschler 29 / 32 Things that I have learned the hard way

• Start early with your code books

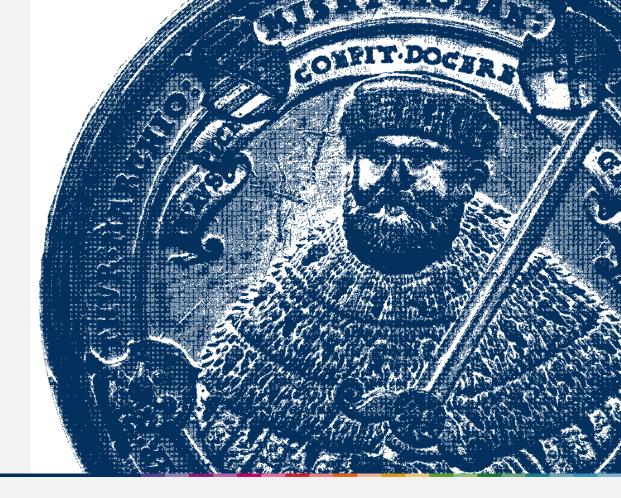
1 = female, 2 = male vs. 1 = male, 2 = female

• Make sure you that you are sharing what you want to share

"... I started reading I realized that the authors included a view-only osf link to supplementary materials of their study (including the detailed scenarios used as experimental condition, materials, syntax, data). However the osf-project folder is empty."









David F. Urschler 31 / 32





David F. Urschler 32 / 32