leibniz-psychology.org (ZPID)

- ... is a Public Open Science Institute for Psychology and related disciplines
- ... is in the process of strategic expansion towards a one-stop research support organization (i.e., research infrastructure), providing services for the entire research cycle
leibniz-psychology.org (ZPID)

Supporting the (scientific) community in psychology (and beyond) to make research
- accessible
- transparent
- reproducible,
- and replicable.
How smart do you think you are?

A meta-analysis on the validity of self-estimates of cognitive ability

Philipp Alexander Freund and Nadine Kasten

Hypotheses

Overall Relationship: Most studies investigating the relationship between self-estimates of cognitive ability and psychometric test scores reveal significant, positive correlations. We therefore expect to find a significant, positive overall relationship between the two variables.

Moderator Analysis: We hypothesize that self-estimates concerning verbal, numerical, or spatial abilities should be more valid than self-assessments of general cognitive ability, which in turn is usually a compound of different subabilities (as implemented in omnibus test batteries). Consequently, use of these “standard” abilities should also result in more valid self-estimates than the use of more rarely assessed abilities, such as memory or processing speed, for instance.
Studien durchführen

Data collection

PsychLab
# Disciplinary Repository for Psychological Science

PsychArchives is a disciplinary repository preserving a variety of digital research objects (DROs), with 21 different publication types (preprints, primary, and secondary publications), research data, tests, preregistrations, multimedia, and code. We provide easy and free access to DROs according to the FAIR principles, which implies the commitment to ensure that research and research data are findable, accessible, interoperable, and reusable.

## Recent Submissions

<table>
<thead>
<tr>
<th>Title</th>
<th>Date</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>What about false insights? Deconstructing the Aha experience along its multiple dimensions for correct and incorrect solutions separately [Danek et al]</td>
<td>2027</td>
<td>researchData</td>
</tr>
<tr>
<td>Twin study of the self- and peer-assessments of generalized prejudice: genetic and environmental overlap between prejudice, personality, and ideological variables [Bratko et al]</td>
<td>2019-01</td>
<td>studyPreprints</td>
</tr>
<tr>
<td>Study1_FirstSample_German_Turks [Knežević et al]</td>
<td>2018-02-08</td>
<td>researchData</td>
</tr>
<tr>
<td>Materialien zu &quot;Nonverbale Synchronie und Musik-Erleben im klassischen Konzert&quot; [Selbert et al]</td>
<td>2019</td>
<td>supplement</td>
</tr>
<tr>
<td>Supplementary materials to &quot;Contempt of congress: Do liberals and conservatives harbor equivalent negative emotional responses towards Congress?&quot; [Danek et al]</td>
<td>2019</td>
<td>supplement</td>
</tr>
</tbody>
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## PsychArchives in a nutshell

1. **Shared Digital Research Objects (DRO)**
   - research outputs from the entire cycle of psychological research are welcome.

2. **Citable and discoverable**
   - uploads are assigned a Digital Object Identifier (DOI) to make them easily Creations/ uniquely citable.

3. **Open licensing**
   - fostering re-use and open science processes.

4. **Open standards**
   - data management plans adapted to the requirements of various authors.

5. **Safe**
   - your research output is stored for the future in a sustainable, public infrastructure.

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**DataWiz** is a free data management system that helps prepare research data.
Title: IS Psychology Still a Science of Behaviour?

Authors: Davies, A.

Abstract:
Since the 1870s, social psychology has examined our human behaviour as an increasingly complex phenomenon of cognitive, affective, and social processes. This article is an analysis of this discipline and its evolution. The authors review the history of social psychology, highlighting the contributions of key figures and theories. They discuss the role of social psychology in explaining human behavior, focusing on the integration of cognitive, affective, and social influences. In recent decades, social psychology has grown in importance, expanding our understanding of social behavior and influencing policy and legislation. This article argues that social psychology should be recognized as a distinct discipline, emphasizing its unique contributions to the study of human behavior.

Keywords:
- social psychology
- human behavior
- cognitive, affective, and social processes
- integration of disciplines
- policy and legislation

The discipline of social psychology, however, is in a unique position as an inter-disciplinary field, sharing methodologies and theories with other disciplines such as psychology, sociology, and neuroscience. The contributions of social psychology to our understanding of human behavior are significant, and the field continues to evolve and expand its scope.
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www.lifp.de/evaluation
Call for Papers - Hotspots in Psychology 2021

Deadline December 1, 2019
Informations- und Recherchedienste
Dokumentation von psychologischer Literatur und Testverfahren aus dem deutschen Sprachraum

PSYNDEX
Gesamte psychologische Literatur
• Forschungspublikationen (empirische Studien, Metaanalysen etc.)
• Fallstudien und Erfahrungsberichte
• Interventionsprogramme
• Patientenratgeber

PSYNDEX Tests
Psychologische und pädagogische Testverfahren
Zugänge zu PSYNDEx

Einfache oder professionelle Suche nach wissenschaftlichen Dokumenten

Internationale Datenbankanbieter
EBSCO, Ovid, GBI-Genios

PubPsych
Multilinguales Datenbankportal mit über 1 Mio. Referenzen aus PSYNDEx, MEDLINE, ERIC etc.

Livivo
Suchmaschine für Literatur der Lebenswissenschaften von ZB MED
Zugänge zu PSYNDEX

Einfache oder professionelle Suche nach wissenschaftlichen Dokumenten

**PSYNDEX Therapy**
- Interventionsstudien
- Metaanalysen
- Therapiebeschreibungen
- Manuale
- Ratgeber

**Testarchiv**
Online-Repositorium mit ca. 200 kostenfrei zugänglichen Instrumenten

Testinstrumente sortiert

- Entwicklungstests
- ABC-D - Activities-specific Balance Confidence-Skala
- Leistungs-, Fähigkeits-
und Eignungstest
- Schulaufgabenstests

Veröffentlichen auch Sie Ihr Testverfahren im Testarchiv!

Zum Ausbau des Testarchivs, mit dem das ZPID psychologische Verfahren bereitstellt und kostenfrei zugänglich macht, suchen wir weitere Wissenschaftler, die ihr Verfahren Nutzerinnen im Rahmen von Open Access zur Verfügung stellen wollen.

Diese Vorteile bieten wir Ihnen:
- Ihr Verfahren wird in einem der größten Testarchive aus dem deutschen Sprachraum veröffentlicht.
- Ihr Verfahren bleibt dauerhaft online verfügbar.
- Die Veröffentlichung, Verbreitung und Veröffentlichung des Verfahrens ist durch die Creative Commons Lizenz geregelt.
Popular topics in 2017

1. Posttraumatic stress disorder, emotional trauma, refugees, trauma, war
   - Prevalence: 0.0097
2. Well-being, life satisfaction, happiness, positive psychology, quality of life
   - Prevalence: 0.0083
3. Psychotherapeutic techniques, cognitive behavior therapy, psychopharmacological processes, cognitive therapy, borderline personality disorder
   - Prevalence: 0.0082
4. Cognitive behavior therapy, major depression, psychopharmacological outcomes, treatment effectiveness evaluation, treatment outcomes
   - Prevalence: 0.0077
5. MRI, magnetic resonance imaging, brain, neuroanatomy, gray matter, brain size
   - Prevalence: 0.0066
6. Teachers, professional competence, teacher characteristics, teacher education, teaching
   - Prevalence: 0.0065
7. Language, syntax, semantics, sentence comprehension, evolved potentials
   - Prevalence: 0.0064
8. Leadership, management personnel, leadership style, leadership qualities, human resource management
   - Prevalence: 0.0063
9. Emotional regulation, emotions, emotional states, emotional control, self-regulation
   - Prevalence: 0.0062
10. Internet, computer-mediated communication, online therapy, online social networks, internet usage
    - Prevalence: 0.0062

Compare the observed with the expected course at a desired point in time.

Observed and expected trend of Topic

https://abitter.shinyapps.io/psychtopics/
Weitere Angebote

**PsychAuthors**
Datenbank mit Profilen von ca. 1.200 Autorinnen und Autoren

**PsychLinker**
Katalog hochwertiger Web-Ressourcen mit ca. 6.500 annotierten Links

www.leibniz-psychology.org
Anbieter-Infos, Online-Untersuchungen, Veranstaltungskalender, Stellenangebote, News
Registered Reports
Why, for whom, and how

Study planning
Preregistration
Data collection
Data analysis
Why – Crisis!

Many scientific studies could not be replicated or reproduced.
(Open Science Collaboration 2015)

Questionable research practices are common in psychology.
(Ioannidis 2005; Kerr 1998; Simmons et al. 2011, …)

Scientific fraud
Why - Publish or perish

• Researchers are evaluated based on their publications.

• Rigorous experimental designs...
  • ...require time and money (sample size, control groups)
  • ...may not even produce novel, exciting, or just significant results...
  • ...which makes them hard to publish.

non-significant results
Why - Questionable Research Practices

- Conduct studies with small sample sizes
- Peek at interim results and stop when desired finding becomes significant
- Measure different dependent variables that reflect the outcome of interest
- Carry out multiple analyses with different covariates
- Drop groups or levels to focus on a larger effect in a subset of the data
Why - Inflated Type I error rates
For whom

• Us as society:
  • work towards more reliable and efficient scientific research
  • re-build trust in science

• Us as authors:
  • regain control!
  • receive feedback at an early stage
How – Registered Reports in Journals

Registered Reports is a format that makes the decision of publication independent from the results. Instead, it is based on:

- The significance of the research question(s)
- The logic, rationale, and plausibility of the proposed hypotheses
- The soundness and feasibility of the methodology and analysis pipeline.

Researchers have control over the methods of their study. Results should not be controlled by the researcher. Thus, results should not determine the career of researchers.
How - Registered Reports in Journals

• Submit a study protocol before data has been collected.

• Receive an In-Principal-Acceptance (IPA), i.e. commitment that study will be published if complied to the preregistered protocol.

Source: https://cos.io/rr/
How - Registered Reports at ZPID

• Rather than an IPA we offer to collect your data free of charge.
• We provide a trustworthy, domain-specific repository for your protocol.
• Protocols receive a timestamp and a DOI.
• Submitted protocols are checked by a person before being published. The extent varies depending on what you submit and which track (repository track / lab track) you choose.
Repository track:
- Minimal requirements for a protocol: Hypotheses + analyses plan
- Formality check
- Option to advertise your online study on our study feed (http://estudy.zpid.de/)
How - Registered Reports at ZPID

Repository track:
- Minimal requirements for a protocol: Hypotheses + analyses plan
- Formality check
- Option to advertise your online study on our study feed (http://estudy.zpid.de/)

Lab track:
- Submit stage 1 manuscript for archiving and data collection
- Feasibility check + peer review
- If successful, we conduct your study free of charge
Authors  RegReports  Reviewers  PsychLab

- Submit protocol
- Feasibility check: reject
- Provide reviews
- Invite reviews
- Peer review
- Invite 2nd reviews
- Editorial decision: reject
- Resubmit revised protocol
- Request revision
- Revised protocol
- Resubmit
- Editorial decision: initiate
- Data collection
- Repository
- Transfer data

Authors RegReports Reviewers PsychLab

Authors: Submit protocol → Feasibility check → reject → Provide reviews → Invite reviews → Peer review
Reviewers: Invite reviews → Provide reviews → Peer review
PsychLab: Data collection → Repository → Transfer data
Authors  RegReports  Reviewers  PsychLab

- protocol
  - submit
  - feasibility check
  - invite reviews
    - peer review
    - provide reviews
    - revised protocol
    - request revision
    - editorial decision
    - invite 2nd reviews
    - reject
    - resubmit
    - initiate
  - revised protocol
  - resubmit
  - reject

- data
  - repository
  - transfer data
  - data collection
Authors | RegReports | Reviewers | PsychLab
---|---|---|---
protocol | submit | feasibility check | invite reviews | peer review
 | reject | | provide reviews |
revised protocol | request revision | editorial decision | invite 2nd reviews |
 | resubmit | | |
 | reject | initiate |
data | repository | | data collection
 | | | transfer data
Currently, we test different providers/recruiting methods and study designs in the online lab and different eye trackers in different setups in the offline lab.
Online Lab

• Panel providers:
  • Quota samples
  • Longitudinal studies
  • Large-scale replication studies

• Crowdsourcing: decision making experiments
• Study feed
Offline Lab

- Visual perception
- Usability studies
- Mobile eye tracker + smartphone

EyeLink 1000+, desktop mount, remote camera

Tobii Pro Spectrum (600 Hz)

Tobii Pro X3-120 (3x)

PupilLabs Pupil Core, Motorola Moto Z3 play
Data Collection at ZPID

- The official launch is planned for end of 2020.
- Currently, we are piloting implementation and workflows for different setups/designs.
- You can apply now and help us as beta tester (especially - but not exclusively - in the offline/ eye tracking lab)!
PsychArchives

the repository for psychological science
Repositories

- repositories are digital infrastructures to archive and distribute scientific material
  - some repositories focus on open-access publications
  - generally all digital assets like texts, data, software and audio/video material can be stored in a repository
Repositories

- repository operator determines scope and type of repository
  - *institutional* repositories (institutions like university libraries or research organizations)
    - availability may be limited to members of the institution
    - domain of contents vary with the diversity of research done within the institution and mission of operator
  - *disciplinary* repositories are not tied to any specific organisation, but a scientific scope
    - all scientists can participate
    - domain of content is less heterogeneous
Does Science Need Another Repository?
Does Science Need Another Repository?

In 2017, no international, discipline specific repository for psychology existed.
Does Science Need Another Repository?
Aim and Scope

- create a psychology-specific repository called PsychArchives
  - self-archiving for scientists
  - data-curation by ZPID
    - backed by an organisational concept to acquire content from institutional partners
    - own acquisition specialist
Aim and Scope

● archive all types of psychological research output
  ○ we call these digital assets/artifacts from your work “Digital Research Objects” or “DRO”
  ○ e.g. supplements for articles, material belonging to studies, statistical analysis code, software, psychodiagnostic instruments

● FAIR principles should be implemented
  ○ findable, accessible, interoperable, reusable
    ■ integrate in international repository landscape and search engines, e.g. Google
    ■ higher visibility for content of the contributors
Acquisition of Content

- three ways
  - self submission
    - direct submission from depositors
    - in the future possible via special upload assistant
  - research cycle imports
    - e.g. from DataWiz or RegisteredReports
  - external imports
    - material from cooperation partners, like publishers or research organizations
    - large scale imports with individual software and workflows
- all ways are backed by a (shallow) curation, to adhere to the goals of PsychArchives
Support of Different DRO Types

- DROs have different sets of metadata
  - which make sense for them
  - which can be displayed differently

- PsychArchives supports 21 different types of DROs
  - all “common” types
    - e.g. literature and media
  - specific types for psychology, e.g.
    - preregistered study protocols
    - psychological tests and measurements
    - research data
DRO Bundles

- for users multiple DROs form a logical unit, like data, code and publication of the same study
  - each DRO has a context, which is important to know
- you can submit multiple connected DROs to PsychArchives
  - their connection is kept and visible in the system
- users have two options
  - all DROs are contained in one record
    - same metadata for all DROs
    - single DOI for all DROs
  - all DROs have an own record and the records are interlinked
    - different and more appropriate metadata for each DROs
    - DOI for each DRO
Reciprocal linking of related items
Data Sharing

- Data depositor and data user must be satisfied
  - transparent licensing and access concepts are required

- experience has shown that data re-use from traditional (research data) infrastructures like FDZs often is limited
- newer sharing products are often more successful
  - c.f. Zenodo, osf.io, slideshare, figshare

- what are they doing differently?
User Perspectives on Sharing Levels

- **data depositors’** access decisions should not be an additional burden
  - want to get their data available fast
  - might have a personal legal or ethical *obligation to protect data*
    - results in constructions like “scientific use” files
  - often curious about data reuse
- **data users** do not want to spend much time and effort getting data
  - want to be sure what re-use is allowed
Dimensions of Sharing

- two main dimensions of sharing
  - *access* to the DRO
    - technical, factual availability
      - e.g. “direct access”, “access after authorization”, “no online access”
  - *licensing* of the DRO
    - rights and re-use possibilities
      - e.g. CC licenses, BSD license, custom licenses
Dimensions of Sharing

- all DROs are assigned to one sharing level

- sharing levels specify a \textit{set} of accompanying licenses
  - several licenses might be mixed in one sharing level
  - necessary for the different types of DROs

- \textit{access} is homogenous over the whole sharing level
  - … and different between the levels
Sharing Level 0 - Public Use

Motivation and audience
Data depositors who want to share their material freely

Access
Public, without registration and manual intervention by ZPID or data depositors

Licensing
established, standardized usage licenses, chosen by the data depositor.

Most valuable sharing level for data users. Licenses are “free” according to the respective definitions. “Share alike” keeps material free even if it is modified and ensures non-commercial use. Attribution of the original depositor(s) is ensured by licensing and good scientific practice.
Motivation and audience

Audience are data depositors who want to share data with the scientific community only. Inspired by “classical” FDZ like PsychData or GESIS DBK.

Access

Data users explicitly confirm that they are scientists and use the material only for scientific work. Personal information about the data user and his/her project are asked (optionally, governed by the data depositor) and made available to the data depositor.

Licensing

The licenses for this level are non-standard and describe acceptable use very specifically. We are currently developing a joint standard on what “scientific use” exactly is with the community.
Sharing Level 2 and above

- additional sharing levels are planned
  - e.g. 2: scientific use with veto; 3: secure use

- we focus on level 1 exclusively at the moment
Certification

- we strive for a certification of PsychArchives
  - e.g. Core Trust Seal (https://www.coretrustseal.org)

- certification is a resource intensive process, so we focus on enhancing the user experience first
How does it work for you, today?

Files and metadata (xls) via e-mail → check by ZPID staff and DOI via e-mail → integration into PsychArchives

https://www.psycharchives.org/contribute
How will it work in 2020?

- semi-automatic bundling of uploaded files to items
- edit metadata for related objects
- specific metadata fields for DRO type
- interlinked items in PsychArchives
PsychArchives.org

- disciplinary
- curated
- low threshold & fast
- citable & FAIR
General Metadata for DROs

- various initiatives offer metadata standards for adoption
  - goal: interoperability of metadata infrastructures
    - e.g. for common search engines or data sharing
  - relevant for contributors
    - adoption of metadata standards
      - increase F and R in FAIR data
    - adherence to standards might be required from funding agencies or can help contributors with getting funding
General Metadata for DROs

- PsychArchives strives to be compatible with DCMI, OpenAIRE and DINI

- metadata schema is documented and versioned
  - allow new developments without breaking compatibility

- the schema is as sparse as possible
  - decrease the burden on contributors
DRO-specific Metadata

- from a specialist’s viewpoint, generic metadata is often not enough
  - e.g. for research data DDI might be more appropriate
- avoid extensive “one size fits all” metadata schema in PsychArchives
  - hard to maintain because of constant changes in the different data domains
DRO-specific Metadata

- we opted to store machine readable extended metadata together with the original DROs
  - responsibility for adequate metadata is with the particular domain specialists
  - specialized tools can export metadata in the end
- basic and extended metadata can be retrieved via APIs

→ PsychArchives only stores a small set of information
  - specialised, independent portals may offer additional functionality and metadata on top of that