Cultural differences regarding expected utilities and costs of plagiarism –

A comparison of high-trust- and low-trust-student-samples

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## Contents

1. Theory  
2. Research Questions  
3. Method and Data  
4. Findings  
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Plagiarism

- analyzed from a criminological or „cheating“-perspective
- Plagiarism as a variation of „crime“
  - „crime as the usage of force or fraud [in social relations] for the pursuit of self-interest“ (Gottfredson/Hirschi 1989)
  - Plagiarism as some kind of fraudulent activity undertaken for the pursuit of self-interest, i.e. to realize chosen ends or to solve assigned tasks
Plagiarism

• is a crime not of passion, but of calculation
• is a crime, where actors willingness to commit in a given situation varies with ...

  – the estimated utility of anticipated consequences for the *case of successful plagiarism*
  and

  – the estimated costs of anticipated consequences for the *case of detected plagiarism*
### Anticipated consequences

<table>
<thead>
<tr>
<th>Utilities</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Grade</td>
<td>Administrative sanctions</td>
</tr>
<tr>
<td>Transaction gains of plagiarism</td>
<td>Fellow students sanctions</td>
</tr>
<tr>
<td>Bad Conscience (negative Utility)</td>
<td>Teachers sanctions</td>
</tr>
<tr>
<td>Embarrassment</td>
<td></td>
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</tbody>
</table>

**Imagined case of successful plagiarism**

**Imagined case of detected plagiarism**
Overarching Question:

Which role do play

cultural influences

regarding students‘ expected utilities

and costs of plagiarism?
Generalized Trust

• … as an expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms, on the part of other members of that community (vgl. Fukuyama 1995, p. 26)

• … as an element of the cultural structure of a society being relevant for the behavioral orientations and the behavioral choices of actors

• “… [as] a cultural element defining the whole society” (Fukuyama 1995, p. 4f.)
  – High-Trust- and Low-Trust-societies
Research Questions

1. Do student populations with \textit{varying levels of generalized trust} differ regarding their \textit{average willingness to plagiarize}?

2. Do student populations with \textit{varying levels of generalized trust} differ with respect to \textit{perceived utilities and costs of plagiarism}?
Study Design

- Standardized-written survey with students from German, Polish and Danish universities

- Questionnaire has been developed in English language, afterwards translated in native language of surveyed students

- for purposes of re-validation questionnaire has been retranslated in a final step by third persons to English
Sample, Data

- Students from 3rd semester onwards; economic and social scientific study programs

- Nordhausen (GER), Wroclaw, Opole (PL), Odense (DK)
- n (total) = 1115
- Sampling procedure does **not** follow a representative sampling program with view to country-specific student populations
- Re-weighing of Polish and Danish data
  - reference: size and sociodemographic structure (gender; academic term; mode of studying) of the German sample
Methods of Data analyses

- ANOVA
- Principle Component Analyses (PCA)
- Regression-based methods
Why Poland, Germany and Denmark?

Generalized trust within countries of investigation

Data: Studying and Ethics 2010; European Value Study 2008 (z-standardized survey data; country specific mean values)
Source: Own computations
<table>
<thead>
<tr>
<th>Theory</th>
<th>Research Question</th>
<th>Method &amp; Data</th>
<th>Results</th>
<th>Conclusion</th>
</tr>
</thead>
</table>

- Denmark = High Trust Sample
- Germany = Medium Trust Sample
- Poland = Low Trust Sample
Research Question 1

Do student populations with **varying levels of generalized trust** differ regarding their average willingness to plagiarize?
Survey Question

How much thoughts and citations would you be maximally willing to adopt in a seminar paper without indicating its’ origins?
Data: Studying and Ethics, 2010
Source: Own computations

Theory | Research Question | Method & Data | Results 1 | Conclusion
--- | --- | --- | --- | ---

- **Odense** (High trust)
- **Nordhausen** (Mean trust)
- **Opole** (Low trust)
- **Wroclaw** (Low trust)

Not one word / one thought | One sentence / one thought | Here and there a few sentences / thoughts | A few paragraphs | Nearly anything

- p<0.001
- $\eta^2=0.057$
24th May 2017

Low
High

Willingness to Plagiarize

Generalized Trust

Poland (Low trust)
Germany (Mean trust)
Denmark (High trust)

Data: Studying and Ethics, 2010
Source: Own computations
Data: European Value Study 2008 (z-standardized data; country specific mean values), CPI 2009
Source: Own computations
Research Question 2

Do students from populations with varying levels of generalized trust differ with respect to perceived utilities and costs of plagiarism?
Main effect models for each sample

Imagined case of successful plagiarism

- Good Grade
- Transaction gains of plagiarism
- Bad Conscience (negative Utility)

Expected Utilities

Imagined case of detected plagiarism

- Administrative sanctions
- Fellow students sanctions
- Teachers sanctions
- Embarrassment

Expected Costs

20
Analytical Focus

Differential influence of expected utilities and costs of plagiarism on willingness to plagiarize within high-trust and low-trust student samples?
**Low-trust-sample** (LinReg: Standardized Coefficients)

**Imagined case of successful plagiarism**

**Willingness to plagiarize**

- **Opole**
  - Good Grade
  - Transaction gains of plagiarism
  - Bad Conscience (negative Utility)

- **Expected Utilities**
  - Administrative sanctions
  - Fellow students sanctions
  - Teachers sanctions

- **Expected Costs**
  - Embarrassment

*adj.$R^2_{total} = 0,132$

$n$ (listwise) $= 136$
High-trust-sample  (LinReg: Standardized Coefficients)

Willingness to plagiarize (q44)

Imagined case of successful plagiarism

0.288***
0.308***
0.322***
-0.234**

Good Grade
Transaction gains of plagiarism
Bad Conscience (negative Utility)

Odense

Willingness to plagiarize (q44)

adj.$R^2_{total} = 0.270$

n (listwise) = 163

Imagined case of detected plagiarism

Expected Utilities

Expected Costs

Administrative sanctions
Fellow students sanctions
Teachers sanctions
Embarrassment
How to explain the negative effect of admin sanctions on plagiarism in a high-trust student-sample?

- Organizational Psychology:
  Theory of implicit psychological contracts (David Litzky [2006, AMP])

- Observation: employees who are strongly intrinsically motivated to show productive work behavior become demotivated and reactant when being threatened by a system of negative sanctions that tries to enforce productivity
  - violation of an implicit psychological contract of reciprocal appreciation

- Our data suggest that psychological contracts of reciprocal appreciation are especially valid in high-trust-environments
### Summary

1. Significant differences regarding the willingness to plagiarize between high-trust- and low-trust-student-samples.
   - willingness to plagiarize increases with a decrease of generalized trust

2. Cost-utility-reflections in each sample do have significant main effects on the individual willingness to plagiarize

3. The effect expected utilities and costs do have on the willingness to plagiarize varies between high-trust and low-trust samples
   - effect of moral self-commitment (bad conscience) on the willingness to plagiarize within high-trust-samples is much greater in size than the effect of any penalty for plagiarism.
   - Reverse effect of administrative sanctions on willingness-to-plagiarize within high-trust- and low-trust-student-samples.
Conclusion

- Strategies of plagiarism prevention should be brought into agreement with the trust environment students are living in.

- Strengthening of trust cultures – and mediated thereby likewise the capitalization of students‘ moral self-commitment – seems to be a more effective mechanism in preventing plagiarism than a sanction policy intending in the first place deterrence by threat of punishment.
Thank you!
Literatur

Universitätsverlag


Columbia University

Oldenbourg,

Cressey, Donald R. (1971, orig. 1953): Other people’s money: a study of the social psychology of embezzlement.
Belmont

DHF; FT; AFT (2012): Gute wissenschaftliche Praxis für das Verfassen wissenschaftlicher Qualifikationsarbeiten.
Internetquelle:

Inaugural-Dissertation (Internetquelle: http://hss.ulb.uni-bonn.de/2012/2771/2771.pdf)

and Social Psychology, Vol. 49, S. 520-528


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<th>Problem</th>
<th>Theory</th>
<th>Research questions</th>
<th>Method &amp; Data</th>
<th>Findings</th>
<th>Conclusion</th>
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</thead>
</table>

### Literatur


Appendix
Measure of generalized trust

• Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?

A. Most people can be trusted □ (1)
B. Don’t know □ (0)
C. Need to be very careful □ (-1)
## Operationalisation: Utility

### Table

| 2. Please imagine you would adopt external thoughts or citations without indicating its origins in a seminar paper you submitted as your own work to a professor and this adoption has not been detected: |
|---|---|---|---|---|---|---|---|---|---|---|
| (1) Considered separately, how comfortable would the following possible consequences of your deed be? | (2) How high would be the probability to you that the named consequence does occur? |
| Very comfortable | Rather comfortable | Never mind | Rather uncomfortable | Very uncomfortable | Very probable | Rather probable | Rather improbable | Very improbable |
| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
| Good Grade | (a) A very good note for your paper | □(1) | □(2) | □(3) | □(4) |
| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
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| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
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| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |
| □(-2) | □(-1) | □(0) | □(1) | □(2) | □(1) | □(2) | □(3) | □(4) |

24th May 2017

Eckhard Burkatzki
## Operationalisierung: Kosten

<table>
<thead>
<tr>
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<th>Research Question</th>
<th>Method &amp; Data</th>
<th>Results</th>
<th>Conclusion</th>
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### Method & Data

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<th>Very probable</th>
<th>Rather probable</th>
<th>Rather improbable</th>
<th>Very improbable</th>
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<td>(a) To be ashamed</td>
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<td>□(1) □(2) □(3) □(4)</td>
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<td>(b) To have a bad conscience</td>
<td>□(2) □(1) □(0) □(1) □(2)</td>
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<td>□(1) □(2) □(3) □(4)</td>
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<tr>
<td>(c) To feel that you have done something embarrassing</td>
<td>□(2) □(1) □(0) □(1) □(2)</td>
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<td>□(1) □(2) □(3) □(4)</td>
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<tr>
<td>(d) To feel that you have violated someone's copyrights</td>
<td>□(2) □(1) □(0) □(1) □(2)</td>
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<td>□(1) □(2) □(3) □(4)</td>
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<td>(e) To have overall an uneasy feeling</td>
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<td>□(1) □(2) □(3) □(4)</td>
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<table>
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<tr>
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<th>Very comfortable</th>
<th>Rather comfortable</th>
<th>Never mind</th>
<th>Rather uncomfortable</th>
<th>Very uncomfortable</th>
<th>Very probable</th>
<th>Rather probable</th>
<th>Rather improbable</th>
<th>Very improbable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(f) To lose the trust of your academic teachers</td>
<td>□(2) □(1) □(0) □(1) □(2)</td>
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<td>□(1) □(2) □(3) □(4)</td>
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<tr>
<td>(g) To remain in bad memory of your academic teachers</td>
<td>□(2) □(1) □(0) □(1) □(2)</td>
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<td>□(1) □(2) □(3) □(4)</td>
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<tr>
<td>(h) To experience discrimination during lectures of the academic teacher being affected</td>
<td>□(2) □(1) □(0) □(1) □(2)</td>
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<tr>
<th>Fellows Sanctions</th>
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<th>Never mind</th>
<th>Rather uncomfortable</th>
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<th>Very probable</th>
<th>Rather probable</th>
<th>Rather improbable</th>
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<tbody>
<tr>
<td>(i) Depreciative looks of fellow students</td>
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<tr>
<td>(j) Snide remarks from your fellow students</td>
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<tbody>
<tr>
<td>(k) To fail the exam in the subject of matter</td>
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<td>□(1) □(2) □(3) □(4)</td>
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<td>(l) Removal from the register of students</td>
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</table>

Eckhard Burkatzki
Net-Utility of Consequences

1. Utility: subjective value * subjective probability for each consequence

2. Add-up the individual utility values for all consequences of one type

3. Division of the computed sum by the number of items that have been assigned to one type of consequence
**Rotated Component Matrix**

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<th>Component</th>
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**Extraction Method:** Principal Component Analysis.
**Rotation Method:** Varimax with Kaiser Normalization.
**Rotation converged in 7 iterations.**
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<th>Cumulative %</th>
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Extraction Method: Principal Component Analysis.
Did you already submit a seminar or final paper as your own to a professor or lecturer that partly had been plagiarized?

Data: Studying and Ethics, 2010
Source: Own computations
<table>
<thead>
<tr>
<th>Theory</th>
<th>Research Question</th>
<th>Method &amp; Data</th>
<th>Results 1</th>
<th>Conclusion</th>
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</table>

**Result 1**

The higher the level of generalized trust within a student sample, the lower is on average the willingness to plagiarize among students.
Low-trust-sample (LinReg: Standardized Coefficients)

Imagined case of successful plagiarism

Wroclaw

Imagined case of detected plagiarism

Willingness to plagiarize

adj.$R^2_{total} = 0.145$

$n$ (listwise) = 124

Expected Utilities

- Good Grade
- Transaction gains of plagiarism
- Bad Conscience (negative Utility)

Expected Costs

- Administrative sanctions
- Fellow students sanctions
- Teachers sanctions
- Embarrassment

0.183*

0.272**

0.158†
Reverse effect of expected administrative sanctions within High-trust- and Low-trust-S.

Data: Studying and Ethics 2010
Source: Own computations
Research Question 3

Is it possible to explain sample-related differences of the aggregated frequency of plagiarism with respect to different perceptions of the cost-utility-structure of plagiarizing activity within high-trust- and low-trust-samples?

(Basic assumption of Methodological Individualism)
Do the macro-effects of generalized trust, measured by sample affiliation, loose statistical significance, when considering the main effects of behavioral expectations within the regression model?
Total Sample, Main Effects  
(Standardized Coefficients)

Step 1.1

adj. $R^2_{\text{total}} = 0.099$  
n (listwise) = 1115

-0.317***

-0.208***

high-trust-sample  
(Denmark)

low-trust sample  
(Poland)

medium-trust sample  
(Germany)

Willingness to plagiarize

Good Grade
Transaction gains of plagiarism
Bad Conscience (negative Utility)
Administrative sanctions
Fellow students sanctions
Teachers sanctions
Embarrassment
Total Sample, Main Effects
(Standardized Coefficients)

adj. $R^2_{\text{total}} = 0.224$
$n$ (listwise) = 694

Step 1.2

-0.182**

high-trust-sample
(Denmark)

-0.016

low-trust sample
(Poland)

Willingness to plagiarize

0.355***

medium-trust sample
(Germany)

0.141***

Bad Conscience
(negative Utility)

Good Grade

Transaction gains of plagiarism

Administrative
sanctions

Fellow students
sanctions

Teachers
sanctions

Embarrassment
Do the macro-effects of generalized trust, measured by sample affiliation, loose statistical significance, when considering additionally to the main-effects micro-macro-interactions within the model?
Empirical Limitations

- Country-comparison without representative data
- High variance of sample size within multivariate analyses because of non-respondents
- Fading-out of the organisational environment of surveyed students (institutional framing and ethical climate within universities)
- No possibility to apply software programmes of multilevel analyses