# Attitudes and behaviours towards replication in empirical research on translation and interpreting

Dear colleague,

My name is Christian, and I am a researcher at the Department of Translation and Interpreting & East Asian Studies at the Universitat Autònoma de Barcelona. I am currently investigating the practices and attitudes of researchers conducting empirical studies in the field of Translation and Interpreting Studies towards replication. My concept of replication is based on that of Schmidt (2009) and I broadly define it as the repetition of the methods that led to a reported finding by a researcher.

Here you will find a questionnaire to collect data on such attitudes and practices. Both researchers who have replicated empirical studies and those who have not may participate in this research by filling in this questionnaire. If you match the researcher profile specified below, I would appreciate it if you could complete this questionnaire. It will only take 10 to 15 minutes to complete, and your contribution is invaluable. The questionnaire is anonymous and the presentation of the results will not identify anybody individually.

#### Participant profile

All researchers who match the following profile are invited to complete the questionnaire:

- You are or have been involved in empirical research in translation or interpretation, widely understood.
- You published results from at least one empirical study in a peer-reviewed journal.
- You are institutionally related to a tertiary institution, whether a PhD candidate, a post-doc or equivalent, or an assistant/associate/full professor or similar positions.

If you decide not to volunteer any information on your views, you might still help me by forwarding this survey to your colleagues and research associates. The questionnaire will be open until the 1<sup>st</sup> of March.

If you would like to contact me, please email me at Christian.Olalla(@)uab.cat

Thank you very much for your help and your time. In filling this questionnaire, you are also contributing to the advancement of our scientific community.

Best regards,

Christian Olalla-Soler

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#### 1. Main country where you conduct your research\*

### 2. Age range \*

Please choose only one of the following:

- under 26
- 27-36
- 37-46
- 47-56
- 57-66
- over 67

#### 3. Position \*

Please choose **only one** of the following:

- PhD candidate
- Post-doctorate or equivalent (e.g., research assistant)
- Assistant/associate professor or equivalent
- Full professor
- Other

#### 4. Which of the following sentences describes you best? \*

Please choose **only one** of the following:

- I have never conducted empirical research.
- I used to carry out empirical research projects, but not anymore.
- I am involved with empirical research regularly.

#### 5. Check all options that apply to your academic experience. \*

[This question was shown if the following conditions were met: Answer was 'I used to carry out empirical research projects, but not anymore.' *or* 'I am involved with empirical research regularly. at question '4. Which of the following sentences describes you best?']

Please choose all that apply:

- I have published in peer-reviewed journals at least once.
- I have never published in peer-reviewed journals.
- I have published the results of an empirical study in peer-reviewed journals at least once.
- I have worked as a reviewer for peer-reviewed journals at least once.
- I am/was a member of the editorial board of a peer-reviewed journal.
- I teach/taught college-level research methods and/or statistics classes.

### 6. Of all the papers you have published in peer-reviewed journals, what ratio does papers containing results from empirical studies represent? \*

[This question was shown if the following conditions were met: Answer was 'I have published in peer-reviewed journals at least once' or 'I have published the results of an empirical study in peer-reviewed journals at least once' at question '5. Check all options that apply to your academic experience'.]

Please choose **only one** of the following:

- up to one fourth
- half of my papers
- three out of four papers
- nearly all my publications

## 7. Of all the papers you have reviewed for peer-reviewed journals, what ratio does papers containing results from empirical studies represent? \*

[This question was shown if the following condition was met: Answer was 'I have worked as a reviewer for peer-reviewed journals at least once' at question '5. Check all options that apply to your academic experience'.]

Please choose **only one** of the following:

- up to one fourth
- half of the papers
- three out of four papers
- nearly all the publications

## 8. Please describe the areas, domains, or topics of research in translation, interpretation or both in which you conduct empirical studies using keywords.

[This question was shown if the following conditions were met: Answer was 'I used to carry out empirical research projects, but not anymore.' *or* 'I am involved with empirical research regularly.' at question '4. Which of the following sentences describes you best?']

#### **Translation Interpretation**

Keyword 1

Keyword 2

Keyword 3

Keyword 4

Keyword 5

## 9. What methods do you use for your empirical research? Please indicate the approximate percentage of use for each of the following methods. \*

[This question was shown if the following conditions were met: Answer was 'I used to carry out empirical research projects, but not anymore.' *or* 'I am involved with empirical research regularly.' at question '4. Which of the following sentences describes you best?'.]

The sum must equal 100

Please write your answer(s) here:

- Experimental designs
- Quasi-experimental designs
- Observational methods
- Case studies
- Mixed methods

#### 10. If you use other methods, please indicate them here.

[This question was shown if the following conditions were met: Answer was 'I used to carry out empirical research projects, but not anymore.' *or* 'I am involved with empirical research regularly.' at question '4. Which of the following sentences describes you best?'.]

Please write your answer here:

### 11. Have you received training in the following fields? \*

[This question was shown if the following conditions were met: Answer was 'I used to carry out empirical research projects, but not anymore.' *or* 'I am involved with empirical research regularly.' at question '4. Which of the following sentences describes you best?'.]

Please choose the appropriate response for each item:

No training Basic training Advanced No training response

Statistics

Empirical research methods

### Replication practices

### 12. Have you ever been contacted by another researcher who wanted to replicate one of your empirical studies? \*

Please choose **only one** of the following:

- Yes
- No
- No response

## 13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else? \*

Please choose **only one** of the following:

- Yes
- No

#### 14. How many empirical studies have you tried to replicate? \*

[This question was shown if the following condition was met: Answer was 'Yes' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?']

Only an integer value may be entered in this field.

Please write your answer here:

## 15. How many times were you the author of both the original and the replicated study? \*

[This question was shown if the following condition was met: Answer was 'Yes' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?']

Only an integer value may be entered in this field.

Please write your answer here:

## 16. How many of your replications were an exact replication, a constructive replication, or a conceptual replication? \*

**Exact replication:** "An *exact* or *direct* replication is an attempt to conduct a study [...] in a manner as close to the original as possible. An exact replicator seeks to use the same materials, the same manipulations, the same dependent variables, and the same kind of participants [...]." (Crandall and Sherman 2016:93)

Constructive replication: "[it] refers to follow-up studies that include an exact or close replication of an original study in an exact/close replication condition, but also include new elements in a constructive replication condition. Thus, constructive replications add at least one further element to the original study. Epistemologically, constructive replications thus seek not 'only' to provide additional evidence for or against an existing finding but also to refine or extend findings." (Hüffmeier, Mazei, and Schultze 2016:86)

Conceptual replication: "A conceptual replication is an attempt to test the same fundamental idea or hypothesis behind the original study, but the operationalizations of the phenomenon, the independent and dependent variables, the type and design of the study, and the participant population may all differ substantially." (Crandall and Sherman 2016:93)

[This question was shown if the following condition was met:

Answer was 'Yes' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?']

Only integer values may be entered in these fields.

Please write your answer(s) here:

- Number of exact replications
- Number of constructive replications
- Number of conceptual replications
- I don't know / I don't remember

## 17. In how many of your replications did you reach the same results and conclusions as in the original study? \*

[This question was shown if the following condition was met: Answer was 'Yes' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?']

Only integer values may be entered in these fields.

Please write your answer(s) here:

- Number of replications in which the same results as in the original studies were obtained
- Number of replications in which the same conclusions as in the original studies were reached
- I don't know / I don't remember

### 18. How many of your replications were presented in conferences or meetings to disseminate the results obtained? \*

[This question was shown if the following condition was met: Answer was 'Yes' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?']

Only an integer value may be entered in this field.

Please write your answer here:

#### 19. Did you publish the results of your replications? \*

[This question was shown if the following condition was met: Answer was 'Yes' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?']

Please choose **only one** of the following:

- Yes, all of them.
- Yes, most of them.
- Yes, some of them.
- No.

# 20. Please indicate the number of replications that were published in the following publication types. \*

[This question was shown if the following conditions were met: Answer was 'Yes, all of them.' *or* 'Yes, most of them.' *or* 'Yes, some of them.' at question '19. Did you publish the results of your replications?'.]

Only integer values may be entered in these fields.

Please write your answer(s) here:

- Number of replications published in peer-reviewed journals
- Number of replications published in non-peer-reviewed journals
- Number of replications published in books or book chapters
- Number of non-published replications
- I don't know / I don't remember

## 21. Did you have difficulties to publish the results because it was a replication? (Check all options that apply) \*

[This question was shown if the following conditions were met: Answer was 'Yes, all of them.' *or* 'Yes, most of them.' *or* 'Yes, some of them.' at question '19. Did you publish the results of your replications?'.]

#### Please choose all that apply:

- Yes, the editors/reviewers were reluctant to publish the results.
- Yes, I had to submit the manuscript to several editors before I could publish it.
- Yes, I had to expand the content of the manuscript (i.e.: adding results from new empirical studies conducted by myself) in order to publish it.
- No, I did not have any difficulty.
- No response.

## 22. How many of your replications were explicitly presented as a replication in the abstract or in the body of the article/chapter/book? \*

[This question was shown if the following conditions were met: Answer was 'Yes, all of them.' *or* 'Yes, most of them.' *or* 'Yes, some of them.' at question '19. Did you publish the results of your replications?'.]

Only an integer value may be entered in this field.

Please write your answer here:

#### 23. Why did you not publish the results? (Check all options that apply) \*

[This question was shown if the following conditions were met: Answer was 'Yes, some of them.' *or* 'Yes, most of them.' *or* 'No.' at question '19. Did you publish the results of your replications?']

#### Please choose **all** that apply:

- I submitted the manuscript, but it was not accepted because it did not contain new results.
- I submitted the manuscript, but it was not accepted because it did not contain original results.
- I submitted the manuscript, but it was not accepted because it did not contain statistically significant results.
- I preferred not to submit the manuscript because I was not able to replicate the results of the original study.
- I preferred not to submit the manuscript in order to use that time for other projects.
- I did not consider it necessary to publish the results.
- No response

## 24. Did you have a conscious reason not to replicate empirical studies? (Check all options that apply) \*

[This question was shown if the following condition was met: Answer was 'No' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?'.]

#### Please choose all that apply:

- I did not have any conscious reason. [By selecting this option, all other options were blocked.]
- It is too time-consuming.
- It is too costly economically.
- It is too costly in terms of staff.
- I am concentrated on an original line of research and have no time/interest/wish to replicate others.
- It is not relevant to my field of research.
- It is not relevant to Translation/Interpreting Studies.
- Replicating an empirical study will not produce the same academic impact as conducting an original empirical study.
- Editors and publishers are not interested in replicated studies.
- Unsatisfactory replication could question my original findings.
- I lack the knowledge to be able to replicate an empirical study.
- I have no interest in replication.
- Other:

### **Attitudes towards replication**

## 25. Would you recommend other researchers in translation and interpreting to replicate empirical studies? Why? \*

[This question was shown if the following condition was met: Answer was 'Yes' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?']

Please choose **only one** of the following:

- Yes
- No

Make a comment on your choice here:

#### 26. Would you be interested in replicating empirical studies? Why? \*

[This question was shown if the following condition was met: Answer was 'No' at question '13. Have you ever tried to replicate an empirical study originally carried out by you or by somebody else?']

Please choose **only one** of the following:

- Yes
- No

Make a comment on your choice here:

## 27. Would you recommend other researchers to replicate their own empirical studies, those of other researchers, or both? Why? \*

[This question was shown if the following condition was met: Answer was 'Yes' at question '25. Would you recommend other researchers in translation and interpreting to replicate empirical studies? Why?']

Please choose **only one** of the following:

- Their own empirical studies.
- Those of other researchers.
- Both.

Make a comment on your choice here:

## 28. Would you prefer to replicate your own empirical studies, those of other researchers or both? Why? \*

[This question was shown if the following condition was met: Answer was 'Yes' at question '26. Would you be interested in replicating empirical studies? Why?)

Please choose **only one** of the following:

- My own empirical studies.
- Those of other researchers.
- Both.

Make a comment on your choice here:

## 29. Of all the empirical studies in translation or interpretation you know of, what ratio do you think have been replicated? \*

#### Please choose **only one** of the following:

- up to one fourth
- half of the studies
- three out of four studies
- nearly all studies

### 30. Do you think this ratio should remain the same, increase or decrease? \*

Please choose **only one** of the following:

- It should remain the same.
- It should decrease (that is, there should be fewer replications).
- It should increase (that is, the number of replications should grow).

## 31. Of the replicated empirical studies in translation and interpretation, what ratio do you think have confirmed the results of the original trial? \*

Please choose **only one** of the following:

- up to one fourth
- half of the replications
- three out of four replications
- nearly all replications

## **32.** Do we need replication in empirical studies in translation and interpretation? \* Please choose only one of the following:

- Yes, absolutely.
- Yes, but it is not as important as in other disciplines.
- No, there are other aspects that need to be addressed first.
- No, not at all.
- No response

## 33. The following are some quotes from psychology scholars on replication. Do you agree with them? \*

Please choose the appropriate response for each item:

Strongly disagree Neutral Agree Strongly agree

"The idea that only the originating lab [researcher, or research group] can meaningfully replicate an effect limits the scope of our findings to the point of being uninteresting and unfalsifiable." (Simons 2014:76)

"It is true that researchers [...] carry out direct [exact] replication attempts only rarely. However, researchers frequently attempt (and publish) conceptual replications, which are more effective than direct replications for assessing the reality and importance of findings because they test not only the validity but also the generality of the finding." (Pashler and Harris 2012:533)

"[T]he journals are filled with the 5% of the studies that show Type I errors [i.e., false positive findings], while the file drawers back at the lab are filled with the 95% of the

studies that show non-significant (e.g., p > 0.05) results." (Rosenthal 1979:638)

"Science is self-correcting but slow—although some erroneous results may get published, eventually these will be discarded. Current discussions of a replicability crisis reflect an unreasonable impatience." (Pashler and Harris 2012:534)

"Direct replication by other laboratories [researchers, or research groups] is the best (and possibly the only) believable evidence for the reliability of an effect." (Simons 2014:76)

"Research findings that do not replicate are worse than fairy tales; with fairy tales the reader is at least aware that the work is fictional." (Wagenmakers et al. 2012:633)

34. In psychology, most unsuccessful replications are due to questionable research practices by the researcher of the original study. How often do you think the following questionable research practices (Fiedler & Schwarz 2016:49; Ioannidis 2005: 696; Schaller 2016:108) occur in empirical studies in translation and interpretation and how negative are they? \*

Please choose the appropriate response for each item:

	How frequent?	How negative?						
	Never Rarely Sometimes Often Always	No response	Not at all negative		Moderately negative	Very negative	Extremely negative	No response
Failing to report all dependent measurements that are relevant for a finding.								
Collecting more data after checking that results were non-significant.								
Failing to report all conditions that are relevant for a finding.								
Rounding off <i>p</i> values (e.g., reporting a <i>p</i> value of .054 as .05).								
Selectively reporting studies regarding a specific finding that 'worked'.								
Deciding whether to exclude data after looking at the impact of doing so regarding a specific finding.								
Stopping data collection after achieving the desired result concerning a specific finding.								
Claiming to have predicted an unexpected result.								
Claiming that results are unaffected by demographic variables								

_	How frequent?	How negative?
(e.g., gender) although one is actually not sure (or knows that they are).		
Falsifying data.		
Detecting some empirical effect when, in fact, no such effect exists in reality.		
Overestimating the size of the detected effect.		
Assuming that a detected effect is broader and more generalisable than it actually is.		
Claiming conclusive research findings solely on the basis of exploratory studies.		

35. Not being able to replicate an empirical study may not only be due to questionable research practices. Do you consider that there are factors specific to empirical research in translation and interpretation that may make it difficult to replicate empirical studies? Which ones are they?

Please write your answer here:

36. Several psychology scholars have proposed mechanisms to enhance replicability (Baker and Penny 2016; Bakker, van Dijk & Wicherts 2012; Everett & Earp 2015; Fuchs, Jenny & Fiedler 2012; Ioannidis 2012). Which of these mechanisms do you think are applicable to empirical research in translation and interpretation? How likely is it that you would adopt these mechanisms in your investigation? \*

Please choose the appropriate response for each item:

	Applicability				Likelihood of adoption				
	Not applicable	Somewhat applicable	Totally applicable	No response	Extremely unlikely	Unlikely Likely	Extremely likely	No response	
Designing more robust empirical studies.									
Making better use of statistics.									
Reporting effect sizes for all statistical tests.									
Conducting studies with larger samples.									
Training Ph.D. students to replicate empirical studies.									
Clearly differentiating between exploratory and confirmatory studies.									
Reporting all decisions concerning data collection and data analysis (clearly stating the rules for concluding data collection, reporting all experimental									
conditions, if observations are eliminated, reporting									

	Applicability	Likelihood of adoption
what the statistical results would be if those observations were included, etc.).		
Uploading open data, materials, and workflow of the empirical study to repositories.		
Providing additional materials (data, analysis protocols, etc.) to those published in academic journals.		
Engaging financing bodies and editors to raise awareness of the importance of replication.		
Pre-registering empirical studies (i.e. a public datetime stamped registration in an institutional registration system of the hypotheses, research design, and data analysis plans before conducting the study).		

37. If you would like to add any comments about the practices and attitudes of researchers conducting empirical studies in the field of Translation and Interpreting Studies towards replication, please use this box.

Please write your answer here:

Please enter you email in the box below if you want to be directly informed of the results. If not, leave the box blank and click on "next" to submit your responses. Your address will not be shared and later will be discarded.

Please write your answer here:

Thank you very much for your contribution to this research and to our scientific community. At the end of this page you can download a copy of your answers, for your records.

The results will be available as soon as possible.

Best regards,

#### XXX

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