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Register

The Nature of the Effect

Effect description

Importance of replication

Original effect size

Original confidence interval

Original sample size

Original location

Country/Region

Original kind of sample

Original survey format

Designing the Replication Study

Materials available?

Assumptions will hold

Location of experimenter

Experimenter knowledge (condition)

Experimenter knowledge (hypothesis)

Sample size

Sample size rationale

Documenting Differences between the Original and Replication Study

Differences in instructions

Differences in measures

Differences in stimuli

Differences in procedure

Differences in location

Differences in remuneration

Differences in populations

Expected differences

Steps to test differences

Analysis and Replication Evaluation

Exclusion criteria

Analysis plan

Successful replication

The Nature of the Effect

Verbal description of the effect I am trying to replicate

We are trying to replicate the key findings of the study by Heyman%2C Van Rensbergen%2C Storms%2C Hutchison%2C and De Deyne %282015%3BJEP%3ALMC%29. The results showed a significant priming effect for BA and SYM pairs but not for FA pairs under high working memory load.

It is important to replicate this effect because

This effect can say something about different processes in semantic priming. More specifically%2C the original findings were taken to mean that prospective processes such as spreading activation are not automatic%2C a result that is not in line with traditional spreading activation accounts.

The effect size of the effect I am trying to replicate is

Subjectanalysis%3A F%281.94%2C153.13%29%3D4.48 p%3D.01%2C itemanalysis%3A F%282%2C117%29%3D3.84%2Cp%3D.02

The confidence interval of the original effect is

i.e.%2C Table 2 from Heyman et al.%2C 2015

The sample size of the original effect is

80 individuals participated in the experiment%3B 40 prime-target pairs per associate type.

Where was the original study conducted? (e.g., lab, in the field, online)

The study was conducted in a laboratory setting

What country/region was the original study conducted in?

The study was conducted at the University of Leuven%2C located in Belgium.

What kind of sample did the original study use? (e.g., student, Mturk, representative)

The original study used first-years psychology students

Was the original study conducted with paper-and-pencil surveys, on a computer, or something else?

The study was conducted on a computer

Designing the Replication Study

Are the original materials for the study available from the author?

yes

I know that assumptions (e.g., about the meaning of the stimuli) in the original study will also hold in my replication because

Yes%2C because the same stimuli will be used

Location of the experimenter during data collection

Participants are alone in a room. The experimenter will be in a room next door to the testing booth

Experimenter knowledge of participant experimental condition

Experimenter knows about the condition but doesn%27t tell anything about it. relatedness%2C load%2C type of association and soa are manipulated within participants

Experimenter knowledge of overall hypotheses

Experimenter knows about the hypotheses but doesn%E2%80%99t tell anything about it.

My target sample size is

160 participants%3B 40 prime-target pairs per associate type.

The rationale for my sample size is

This is an exact replication%2C so we used the same stimuli. As for the amount of participants%3A we seek to double the number of participants in comparison to the original study.

Documenting Differences between the Original and Replication Study

The similarities/differences in the instructions are

Exact

The similarities/differences in the measures are

Exact

The similarities/differences in the stimuli are

Exact

The similarities/differences in the procedure are

Exact

The similarities/differences in the location (e.g., lab vs. online; alone vs. in groups) are

Exact

The similarities/difference in remuneration are

Close

The similarities/differences between participant populations are

Close

What differences between the original study and your study might be expected to influence the size and/or direction of the effect?

We don't expect differences that influence the size and direction of the effect.

I have taken the following steps to test whether the differences listed in the previous question will influence the outcome of my replication attempt

None

Analysis and Replication Evaluation

My exclusion criteria are (e.g., handling outliers, removing participants from analysis)

The same as in the original study
People between 18-40 years old
Their native language should be Dutch
Participants can't have dyslexia
Response times under 250ms will be deleted
A cutoff value per participant i.e. the mean plus 3SD
whereby response times exceeding this value will be deleted.

My analysis plan is (justify differences from the original)

It's the same as in the original experiment.

A successful replication is defined as

It%E2%80%99s successful if the results are consistent with the previous study %28see above for details%29..

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