Pathway validation survey

Start of Block: Block 20

Q39 Dear researcher,  
     
Thank you for agreeing to participate in our study, which involves filling in two surveys: the first one you completed in July or August, and the current survey follows up on that. As a reminder, in the first survey, we asked you to list the data-processing steps you would take before conducting an analysis to answer a particular research question involving semantic priming. In the current survey, we use your input as well as those from other sources, and ask you to evaluate which data-processing steps are appropriate and which aren’t in your opinion. More specifically, **we are interested in determining the robustness of a finding by considering different data-processing pathways that are arguably equivalent**, rather than selecting one particular pathway. We are asking your input to determine which of these pathways are suitable to include.   
    
We recommend you to take the survey on a computer, rather than a smartphone. Before continuing, please take a moment to read and fill in the informed consent form.

Q71   
**CONSENT FORM** Semantic Priming Multiverse Expert Consensus Survey  
    
 You are invited to be in a research study about how you process reaction time or response latency data. You should have experience in semantic priming or working with reaction time data. We ask that you read this form and ask any questions you may have before agreeing to be in the study.  
    
 This study is being conducted by Dr. Erin M. Buchanan, Professor of Cognitive Analytics at Harrisburg University of Science and Technology.  
   
 **Background Information:**  
 In the entire study, you will complete two expert surveys about how reaction time data is processed, one of which you already filled in. You will provide information about how you process reaction time data for analysis.  
    
 **Procedures:**  
 You will take this study entirely online from a desktop or laptop computer with a keyboard. You will be given an opportunity to provide your email to be involved in the final publication. The entire study should take less than thirty minutes to complete.  
   
 **Risks and Benefits of being in the Study:**  
 We will collect your email to contact you about the final manuscript. This information will initially be stored with the survey data, such that we can also contact you if we have any questions about your response and to better monitor data quality. Afterwards, we will remove your contact information such that any responses that may identify you will be anonymized before data sharing. No associated risks are expected for participating in the study.  
   
 You may benefit from being in the study by your inclusion on the final manuscript. Please note, you will need to comment/approve the final draft to ensure adherence to typical CRediT requirements.  
    
 **Compensation:**  
 No compensation is provided for this study.  
    
 **Confidentiality and Data Sharing:**  
 Measures are taken to ensure that all information you provide will be anonymous. The data from this project will be posted publicly for other researchers to use; however, no data will be directly linked to you. Your name or other identifying information will not be entered into the dataset and no references will be made in verbal or written reports that could link you to the study. In any publication, information will be provided in such a way that you cannot be identified.  
   
 Before your data are shared outside the research team, any potentially identifying information will be removed. The anonymous data may be shared with other researchers, for both related and unrelated research purposes in the future. Your anonymous data may also be made available in online data repositories such as the Open Science Framework (which are free data repositories that require registration to have access), which allow other researchers and interested parties to access the data for further analysis.

**~~Please note that your data will be anonymous, which means you cannot ask for it to be removed once emails have been removed from the data.~~**

**Voluntary Nature of the Study:**  
 **Participation in this study is voluntary:**  
 Your decision whether to participate will not affect your current or future relations with Harrisburg University of Science and Technology or your local institution. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.  
    
 **Contacts and Questions:**  
 The researchers conducting this study are Dr. Erin M. Buchanan in partnership with the Psychological Science Accelerator. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact Dr. Erin M. Buchanan at ebuchanan@harrisburgu.edu or the SPAML team at 007spaml@gmail.com.    
    
 **Questions or Concerns:**  
 This study has been reviewed by Harrisburg University of Science and Technology’s Institutional Review Board (IRB).  The IRB has determined that this study fulfills the human research subject protections obligations required by state and federal law and University policies.  
    
 ***A copy of this information to keep for your records will be provided upon request.***

* I consent (1)
* I do not consent (2)

Skip To: End of Survey If CONSENT FORM Semantic Priming Multiverse Expert Consensus Survey   You are invited to be in a res... = I do not consent

Q63 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

End of Block: Block 20

Start of Block: Block 22

Q41 Before continuing, we would like to ask you to enter your email address and that of any collaborators (if applicable). If you collaborate with someone, please fill in the survey together and only one time. We will use your email to reach out to you regarding co-authorship on the eventual paper. Note that only researchers who complete this survey and participated in the earlier survey qualify for co-authorship.  
In addition, and this is different from the previous survey, we will couple your email to your answers, so we can contact you if something is unclear to us, and to better monitor data quality. After the data have been processed, we will remove your contact information from the dataset.

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Q64 Timing

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Page Submit (3)

Click Count (4)

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| Page Break |  |

Q40 To introduce the survey, we first need to explain a number of essential aspects. So please, read them carefully, as it will determine the eventual success of the entire study. Some of the instructions are similar, but slightly different compared to the first survey, so we urge you not to skip them, but to carefully read them.

Q65 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

End of Block: Block 22

Start of Block: Block 23

Q42 *Research question*  
   
 As in the first survey, we will again focus on semantic priming. In general, people are faster to recognize a target (e.g., *dog*), when it is preceded by a related prime (e.g., *cat*) compared to an unrelated prime (e.g., *car*). It is often assumed that the magnitude of the priming effect varies depending on how strongly the prime (*cat* in the above example) and target (*dog* in the example) are related. For instance, *cat*-*dog* may be a more strongly related pair compared to *finger*-*toe*. In this study, we seek to examine whether such *item-level* priming effects are stable across languages. More specifically, if items exhibit a strong priming effect in English do they also exhibit a strong priming effect in German, and vice versa for items yielding weak priming effects? We will only focus on priming effects in terms of response time, not accuracy.  
 Critically, there are different ways to process such data. We now want to examine whether the potential stability of *item-level priming* across languages, or lack thereof, is *robust* across different equivalent data-processing pathways. Next, we will briefly summarize the procedure of the original data collection, which is important to understand the different potential data-processing options that were identified.

Q66 Timing

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Page Submit (3)

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Q43 *Procedure original data collection*  
   
 We will rely on data from a recent (ongoing) study by Buchanan et al. (2022) which is currently investigating semantic priming across 10+ languages using equivalent, translated stimuli. Participants (adults) had to perform a so-called continuous lexical decision task. On each trial, participants saw a letter string, which either formed an existing word or a nonword. Participants needed to decide as quickly and accurately as possible whether the letter string was an existing word by pressing either Z or / on a QWERTY keyboard (or similar pattern on the native language keyboard). When no response was provided within 3 seconds, the trial was automatically terminated. Participants got 10 practice trials followed by a total of 800 test trials, split up in blocks of 100, using an intertrial interval of 500 ms. After each block, participants could take a break. There were 400-word trials and 400-nonword trials. 150-word trials involved a critical target (e.g., dog), half of which were preceded by a related prime trial (e.g., cat), and the other half by an unrelated prime trial (e.g., car). The other trials were fillers. Participants saw a particular stimulus only once during the study, and whether a given target was preceded by its related or unrelated prime was determined at random. If you require additional information, feel free to contact us, or you can also consult Buchanan et al.’s paper here: https://osf.io/q4fjy/

Q67 Timing

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Page Submit (3)

Click Count (4)

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Analysis *Goal of the current study*  
  
 In the first part of the survey, we will ask you to evaluate different choices pertaining to data-processing with a particular analysis in mind. In other words, we will introduce the final steps of the analysis pathway, and we ask you to evaluate different potential data-processing pathways. More specifically, response times to the critical targets will be z-transformed for each participant separately (i.e., every participant’s arithmetic mean response time to critical targets will be subtracted from their response time at each target trial and the result will be divided by the participant’s standard deviation again only using critical trials). Next, we will separate related and unrelated trials for each target, after which we subtract their arithmetic mean z-transformed response times (aggregated across participants), for example:   
This step will be completed for each target to create item-level priming effects. The resulting item-level priming effects based on the English data will be correlated (i.e., Pearson’s rho) with the equivalent item-level priming effects based on the German data. The point estimate of the correlation coefficient and its 95% confidence interval as well as the p-value (H0: Pearson's *rho* = 0; H1: Pearson's *rho* > 0) will serve as the main outcome of interest to answer the research question.

Q68 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

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Q44 *Goal of the current study (continued)*  
   
To reiterate, you will next be asked to evaluate various ways to potentially process these data. These processing choices are derived from various sources, including your input from the previous survey. On each page, you’ll see a number of thematically-clustered, data-processing choices, and we ask you to judge whether they are appropriate, or inappropriate to include, given our research question. If your choice depends on the data, we provide a representative sample here [insert link]. If you are unfamiliar with a particular option, you can select “don’t know”, but you have to provide an answer for every option: appropriate, inappropriate, or don’t know. Importantly, you can consider none, one, more than one or all options on a given page as appropriate or inappropriate. You don’t have to give a justification, though at the end of the survey you can leave comments. If you selected more than one option as appropriate, you will next be prompted to rank order the selected options from best/most preferred to worst/least preferred yet still appropriate. Note that ties are not allowed.

Q69 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

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| Page Break |  |

Q47 *Goal of the current study (continued)*   
For example, imagine that there are four options to deal with outliers, Option A, Option B, Option C, and Option D. Imagine, you deem A, C and D appropriate and B inappropriate. After selecting your respective answers, you will be prompted to rank order Option A, C, and D by entering a number from, in this case, 1 to 3, with 1 being your best/most preferred option and 3 being your worst/least preferred option. If you deem only one or none of the options to be appropriate, you won’t be prompted to rank order them.   
  
Note that some options may appear contradictory. For example, Option A: remove data points for reason X; Option B: keep data points regardless. You may deem only one of the two options appropriate, but that doesn’t have to be the case. You can also consider both to be appropriate in that there are sound arguments for either option, and they would both allow you to answer the research question. Alternatively, you can also consider both options to be inappropriate, if you think neither option is justifiable given the research question.   
  
In addition, some options are subsets of others. For example, Option A: remove Response Times (henceforth RTs) below X ms; Option B: remove RTs below Y ms, with Y > X. The idea is to first evaluate whether each option in itself would be appropriate. One could, for example, consider Option B to be too strict in that it gets rid of too many observations, and/or Option A to be not strict enough (it includes too many observations). Again, you could also consider both options to be appropriate, and then in the next step select which of the two you’d consider to be the best/most preferred one.   
  
In total, we have identified 18 decisions with two or more alternatives. Before showing the 18 decisions, we first want to verify whether the instructions were clear. To this end, we have five questions about the goal and design of the current study. Click the arrow button to get started.

Q70 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

End of Block: Block 23

Start of Block: Attention check 1

Q48 The goal of the study is to examine …

* Semantic priming at the participant level in terms of RTs (1)
* Semantic priming at the item level in terms of RTs (2)
* Semantic priming at the participant level in terms of accuracy (3)
* Semantic priming at the item level in terms of accuracy (4)

End of Block: Attention check 1

Start of Block: Feedback attention check 1

Q48 Your response was not correct. The goal is to examine semantic priming at the item level in terms of RTs.

End of Block: Feedback attention check 1

Start of Block: Attention check 2

Q49 The data collection procedure involved the following task

* Continuous naming (naming both primes and targets) (1)
* Continuous lexical decision (responding to both primes and targets) (2)
* Standard naming (naming only targets and not primes) (3)
* Standard lexical decision (responding to targets and not to primes) (4)

End of Block: Attention check 2

Start of Block: Feedback attention check 2

Q50 Your response was not correct. The task is a continuous lexical decision task.

End of Block: Feedback attention check 2

Start of Block: Attention check 3

Q51 What is the goal of the study?

* Determining the robustness of a finding by considering different data-processing pathways that are arguably equivalent (1)
* Determining the robustness of a finding by considering different data-processing pathways that are arguably not equivalent (2)
* Discovering moderators of an effect by considering different data-processing pathways that are arguably equivalent (3)
* Discovering moderators of an effect by considering different data-processing pathways that are arguably not equivalent (4)

End of Block: Attention check 3

Start of Block: Feedback attention check 3

Q52 Your response was not correct. The goal is to determine the robustness of a finding by considering different data-processing pathways that are arguably equivalent.

End of Block: Feedback attention check 3

Start of Block: Attention check 4

Q53 You’ll receive a number of data-processing choices thematically clustered. We will ask you to evaluate whether they are appropriate to answer our research question. Which statement about this task is correct?

* For each cluster, you can only select one option as appropriate (1)
* For each cluster, you can select more than one, or all options as appropriate (2)
* For each cluster, you have to select at least one option as appropriate (3)
* If you are not familiar with a particular option, you have to guess (4)

End of Block: Attention check 4

Start of Block: Feedback attention check 4

Q54 Actually, for each cluster, you can select more than one, or all options as appropriate.

End of Block: Feedback attention check 4

Start of Block: Attention check 5

Q55 After selecting the appropriate options for a given cluster, you will be asked to rank-order them. Which statement about this task is correct?

* You have to order all appropriate options from best/most preferred (1) to worst/least preferred (n = number of appropriate options), yet still appropriate (1)
* You have to order all appropriate options from best/most preferred to worst/least preferred, yet still appropriate, allowing for ties. (2)
* You have to order all options from best/most preferred (1) to worst/least preferred (n = number of options), regardless of whether you deemed them appropriate in the previous step (3)
* You have to order all options from best/most preferred to worst/least preferred, regardless of whether you deemed them appropriate in the previous step, allowing for ties. (4)

End of Block: Attention check 5

Start of Block: Feedback attention check 5

Q56 Actually, you have to order all appropriate options from best/most preferred (1) to worst/least preferred (n = number of appropriate options), yet still appropriate.

End of Block: Feedback attention check 5

Start of Block: Block 34

Q57 Next, you will evaluate the 18 decisions we identified and their alternatives. If you would like to provide clarifications, or suggest alternative processing steps, there will be an open comment box after you have evaluated the 18 decisions. To reiterate, the analysis part itself is fixed at this point (i.e., z-transformed RTs at the participant level will be used to calculate item-level priming effects for both languages (English and German), which will then be correlated). However, in the last part of the survey, we will consider alternative analyses pathways as well. Click the arrow button to get started.

Q73 To help make the task concrete, we provide you with a sample of the data. You're welcome to use the data, if it helps you to make certain decisions, but it's not a requirement. In any case, please do not share this data. The full English data will be released with the SPAML paper (Spring 2024), and then can be used for any research you wish.  
     
The data can be found here: [data]  (gz files can be imported into R directly with read.csv).   
    
The stimuli information can be found here: [stimuli]   
    
Trial pairs are created by being in order within a block. The stimuli information can tell you which pairs to expect in order for related, unrelated, and nonword trial combinations. Fix\_sender is the trial/block code where the first set of numbers is the block and the last set is the trial number (05\_00\_000\_1 is the fifth block 000 indicates the first trial, ignore \_1). Duration is the RT - some have been excluded in our processing following the pre-registration of the main SPAML project; you can use original\_duration if you want all raw RTs. The column observation denotes participant number.

End of Block: Block 34

Start of Block: Block 1

QID1 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Remove participants younger than 18 (1) |  |  |  |
| Keep participants regardless (2) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

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QID2 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Remove participants younger than 18 (1)

\_\_\_\_\_\_ Keep participants regardless (2)

End of Block: Block 1

Start of Block: Block 2

QID3 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

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| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Remove non-native speakers (1) |  |  |  |
| Keep participants regardless (2) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

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QID4 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Remove non-native speakers (1)

\_\_\_\_\_\_ Keep participants regardless (2)

End of Block: Block 2

Start of Block: Block 3

QID5 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

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|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Exclude participants with multimodal RT distribution according to Silverman's test (1) |  |  |  |
| Keep participants regardless (2) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

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QID6 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Exclude participants with multimodal RT distribution according to Silverman's test (1)

\_\_\_\_\_\_ Keep participants regardless (2)

End of Block: Block 3

Start of Block: Block 4

QID7 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

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|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Remove participants with fewer than 100 trials (1) |  |  |  |
| Keep participants regardless (2) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

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QID8 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Remove participants with fewer than 100 trials (1)

\_\_\_\_\_\_ Keep participants regardless (2)

End of Block: Block 4

Start of Block: Block 5

QID9 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

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|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Remove participants who always use the same response button (1) |  |  |  |
| Keep participants regardless (2) |  |  |  |

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Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

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Q10 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Remove participants who always use the same response button (1)

\_\_\_\_\_\_ Keep participants regardless (2)

End of Block: Block 5

Start of Block: Block 6

Q11 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

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| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Remove participants who always alternate responses after every trial (word, nonword, word, nonword,…) (1) |  |  |  |
| Keep participants regardless (2) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

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Q12 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Remove participants who always alternate responses after every trial (word, nonword, word, nonword,…) (1)

\_\_\_\_\_\_ Keep participants regardless (2)

End of Block: Block 6

Start of Block: Block 7

Q13 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

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|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Across trials: Participants with an error rate above 10% removed (1) |  |  |  |
| Across trials: Participants with an error rate above 20% removed (2) |  |  |  |
| Across trials: Participants with an error rate above 40% removed (3) |  |  |  |
| Across trials: Participants with more than 70% of the trials being errors or time-outs are removed (4) |  |  |  |
| Across trials: Calculate each participant's accuracy and remove those whose accuracy is 3 SD below the mean (5) |  |  |  |
| Across trials: Calculate each participant's accuracy and remove those whose accuracy is more than three scaled MAD above and below the median accuracy, with scaled MAD defined as c\*median(abs(accuracy-median(accuracy))), where c=-1/(sqrt(2)\*erfcinv(3/2)) (11) |  |  |  |
| For nonwords: Participants with an error rate above 25% removed (6) |  |  |  |
| For words: Participants with an error rate above 25% removed (7) |  |  |  |
| Per lexical status (words vs. nonwords): Participants with an error rate above 30% for either lexical status are removed (8) |  |  |  |
| Per lexical status (words vs. nonwords): Participants with an error rate above x% removed, where x is determined based on a one-sided proportion test to see whether participants performed above chance (alpha level = .05, chance level means p = .50) (9) |  |  |  |
| Keep participants regardless (10) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

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Q14 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Across trials: Participants with an error rate above 10% removed (1)

\_\_\_\_\_\_ Across trials: Participants with an error rate above 20% removed (2)

\_\_\_\_\_\_ Across trials: Participants with an error rate above 40% removed (3)

\_\_\_\_\_\_ Across trials: Participants with more than 70% of the trials being errors or time-outs are removed (4)

\_\_\_\_\_\_ Across trials: Calculate each participant's accuracy and remove those whose accuracy is 3 SD below the mean (5)

\_\_\_\_\_\_ Across trials: Calculate each participant's accuracy and remove those whose accuracy is more than three scaled MAD above and below the median accuracy, with scaled MAD defined as c\*median(abs(accuracy-median(accuracy))), where c=-1/(sqrt(2)\*erfcinv(3/2)) (6)

\_\_\_\_\_\_ For nonwords: Participants with an error rate above 25% removed (7)

\_\_\_\_\_\_ For words: Participants with an error rate above 25% removed (8)

\_\_\_\_\_\_ Per lexical status (words vs. nonwords): Participants with an error rate above 30% for either lexical status are removed (9)

\_\_\_\_\_\_ Per lexical status (words vs. nonwords): Participants with an error rate above x% removed, where x is determined based on a one-sided proportion test to see whether participants performed above chance (alpha level = .05, chance level means p = .50) (10)

\_\_\_\_\_\_ Keep participants regardless (11)

End of Block: Block 7

Start of Block: Block 8

Q15 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Across trials: Items with an error rate above 25% removed (1) |  |  |  |
| Across trials: Items with an error rate above 50% removed (2) |  |  |  |
| Keep items regardless (3) |  |  |  |

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| --- | --- |
| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
| --- | --- |
|  |  |

Q16 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Across trials: Items with an error rate above 25% removed (1)

\_\_\_\_\_\_ Across trials: Items with an error rate above 50% removed (2)

\_\_\_\_\_\_ Keep items regardless (3)

End of Block: Block 8

Start of Block: Block 9

Q17 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Exclude trials with an incorrect response (1) |  |  |  |
| Exclude trials with an incorrect response and trials following an incorrect response (2) |  |  |  |
| Keep trials regardless (3) |  |  |  |

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| --- | --- |
| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
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Q18 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Exclude trials with an incorrect response (1)

\_\_\_\_\_\_ Exclude trials with an incorrect response and trials following an incorrect response (2)

\_\_\_\_\_\_ Keep trials regardless (3)

End of Block: Block 9

Start of Block: Block 10

Q19 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Exclude the first trial of each block (1) |  |  |  |
| Keep trials regardless (2) |  |  |  |

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| --- | --- |
| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

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Q20 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Exclude the first trial of each block (1)

\_\_\_\_\_\_ Keep trials regardless (2)

End of Block: Block 10

Start of Block: Block 11

Q21 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Exclude negative RTs (1) |  |  |  |
| Keep trials regardless (2) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
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Q22 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Exclude negative RTs (1)

\_\_\_\_\_\_ Keep trials regardless (2)

End of Block: Block 11

Start of Block: Block 12

Q23 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Across trials: Remove participants who responded quicker than 250 ms on more than 25% of the trials (1) |  |  |  |
| Keep participants regardless (2) |  |  |  |

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| --- | --- |
| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
| --- | --- |
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Q24 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Across trials: Remove participants who responded quicker than 250 ms on more than 25% of the trials (1)

\_\_\_\_\_\_ Keep participants regardless (2)

End of Block: Block 12

Start of Block: Block 13

Q25 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Across trials: Remove participants with more than 50% time out trials (i.e., responses outside of the 3s window) (1) |  |  |  |
| Across trials: Calculate each participant's proportion of time outs and remove those whose proportion is 3 SD below the mean (2) |  |  |  |
| Keep participants regardless (12) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
| --- | --- |
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Q26 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Across trials: Remove participants with more than 50% time out trials (i.e., responses outside of the 3s window) (1)

\_\_\_\_\_\_ Across trials: Calculate each participant's proportion of time outs and remove those whose proportion is 3 SD below the mean (2)

\_\_\_\_\_\_ Keep participants regardless (3)

End of Block: Block 13

Start of Block: Block 14

Q27 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Across trials: Calculate each participant's mean RT and remove those whose mean RT is 2 SD above the grand mean (1) |  |  |  |
| Across trials: Calculate each participant's mean RT and remove those whose mean RT is 2.5 SD above the grand mean (2) |  |  |  |
| Across trials: Calculate each participant's mean RT and remove those whose mean RT is more than three scaled MAD above and below the median of participant's mean RTs, with scaled MAD defined as c\*median(abs(mean RTs-median(mean RTs))), where c=-1/(sqrt(2)\*erfcinv(3/2)) (13) |  |  |  |
| Keep participants regardless (12) |  |  |  |

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| --- | --- |
| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
| --- | --- |
|  |  |

Q28 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Across trials: Calculate each participant's mean RT and remove those whose mean RT is 2 SD above the grand mean (1)

\_\_\_\_\_\_ Across trials: Calculate each participant's mean RT and remove those whose mean RT is 2.5 SD above the grand mean (2)

\_\_\_\_\_\_ Across trials: Calculate each participant's mean RT and remove those whose mean RT is more than three scaled MAD above and below the median of participant's mean RTs, with scaled MAD defined as c\*median(abs(mean RTs-median(mean RTs))), where c=-1/(sqrt(2)\*erfcinv(3/2)) (3)

\_\_\_\_\_\_ Keep participants regardless (4)

End of Block: Block 14

Start of Block: Block 15

Q29 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Across trials: Calculate each item's mean RT and remove those with a mean RT of 2.5 SD above the grand mean (1) |  |  |  |
| Keep items regardless (12) |  |  |  |

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| --- | --- |
| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
| --- | --- |
|  |  |

Q30 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Across trials: Calculate each item's mean RT and remove those with a mean RT of 2.5 SD above the grand mean (1)

\_\_\_\_\_\_ Keep items regardless (2)

End of Block: Block 15

Start of Block: Block 16

Q31 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| RTs < 50 ms removed (1) |  |  |  |
| RTs < 100 ms removed (12) |  |  |  |
| RTs < 150 ms removed (13) |  |  |  |
| RTs < 160 ms removed (14) |  |  |  |
| RTs < 200 ms removed (15) |  |  |  |
| RTs < 250 ms removed (16) |  |  |  |
| RTs < 300 ms removed (17) |  |  |  |
| Keep trials regardless (18) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
| --- | --- |
|  |  |

Q32 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ RTs < 50 ms removed (1)

\_\_\_\_\_\_ RTs < 100 ms removed (2)

\_\_\_\_\_\_ RTs < 150 ms removed (3)

\_\_\_\_\_\_ RTs < 160 ms removed (4)

\_\_\_\_\_\_ RTs < 200 ms removed (5)

\_\_\_\_\_\_ RTs < 250 ms removed (6)

\_\_\_\_\_\_ RTs < 300 ms removed (7)

\_\_\_\_\_\_ Keep trials regardless (8)

End of Block: Block 16

Start of Block: Block 17

Q33 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| RTs > 1000 ms removed (1) |  |  |  |
| RTs > 1500 ms removed (12) |  |  |  |
| RTs > 1600 ms removed (13) |  |  |  |
| RTs > 2000 ms removed (14) |  |  |  |
| RTs > 2500 ms removed (15) |  |  |  |
| RTs > 3000 ms removed (16) |  |  |  |
| Keep trials regardless (18) |  |  |  |

|  |  |
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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
| --- | --- |
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Q34 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ RTs > 1000 ms removed (1)

\_\_\_\_\_\_ RTs > 1500 ms removed (2)

\_\_\_\_\_\_ RTs > 1600 ms removed (3)

\_\_\_\_\_\_ RTs > 2000 ms removed (4)

\_\_\_\_\_\_ RTs > 2500 ms removed (5)

\_\_\_\_\_\_ RTs > 3000 ms removed (6)

\_\_\_\_\_\_ Keep trials regardless (7)

End of Block: Block 17

Start of Block: Block 18

Q35 Which option(s) do you deem appropriate? *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Appropriate (1) | Not appropriate (2) | Don't know (3) |
| Across trials: 5% fastest and 5% slowest RTs are removed (1) |  |  |  |
| Across trials: RTs +- 2 SD from the mean are removed (27) |  |  |  |
| Across trials: RTs +- 2.5 SD from the mean are removed (12) |  |  |  |
| Across trials: RTs +- 3 SD from the mean are removed (13) |  |  |  |
| Across trials: RTs +- 3 SD from the mean are replaced by the mean +- 3 SD (i.e., the end of the distribution) (14) |  |  |  |
| Across trials: RTs beyond third quartile + 3\*interquartile range are removed (35) |  |  |  |
| Per item: RTs +- 2.5 SD from the item-specific mean are removed (29) |  |  |  |
| Per item: RTs +- 3 SD from the item-specific mean are removed (30) |  |  |  |
| Per item: RTs +- 2 SD from the item-specific mean are replaced by the mean +- 2 SD (i.e., the end of the distribution) (15) |  |  |  |
| Per participant: Remove 5% fastest and 5% slowest RTs (31) |  |  |  |
| Per participant: RTs +- 2 SD from the participant-specific mean are removed (32) |  |  |  |
| Per participant: RTs +- 2.5 SD from the participant-specific mean are removed (16) |  |  |  |
| Per participant: RTs +- 3 SD from the participant-specific mean are removed (19) |  |  |  |
| Per participant: RTs +- 5 SD from the participant-specific mean are removed (33) |  |  |  |
| Per participant: RTs +- 2 SD from the participant-specific mean are replaced by the mean +- 2 SD (i.e., the end of the distribution) (20) |  |  |  |
| Per participant: RTs +- 2.5 SD from the participant-specific mean are replaced by the mean +- 2.5 SD (i.e., the end of the distribution) (21) |  |  |  |
| Per condition (related vs. unrelated): RTs +- 2.5 SD from the condition-specific mean are removed (34) |  |  |  |
| Per condition (related vs. unrelated): RTs beyond third quartile + 1.5\*interquartile range are removed (22) |  |  |  |
| Per condition (related vs. unrelated): RTs +- 2 SD from the condition-specific mean are replaced by the mean +- 2 SD (i.e., the end of the distribution) (23) |  |  |  |
| Per condition (related vs. unrelated) and item combination: RTs +- 2.5 SD from the condition-by-item specific mean are removed (36) |  |  |  |
| Per condition (related vs. unrelated) and participant combination: RTs +- 2 SD from the condition-by-participant-specific mean are removed (24) |  |  |  |
| Per condition (related vs. unrelated) and participant combination: RTs +- 2.5 SD from the condition-by-participant-specific mean are removed (25) |  |  |  |
| Per condition (related vs. unrelated) and participant combination: RTs +- 3 SD from the condition-by-participant-specific mean are removed (26) |  |  |  |
| Per block (of 100 trials) and participant combination: RTs +- 3 SD from the block-by-participant-specific mean are removed (28) |  |  |  |
| Keep trials regardless (18) |  |  |  |

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| Page Break |  |

Display This Question:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

Carry Forward Selected Choices from "Which option(s) do you deem appropriate? If you want to read the task instructions again, click here; if you want to inspect a sample of the data, click here: [data][stimuli]"

|  |  |
| --- | --- |
|  |  |

Q36 Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should get number 1, the second best should get number 2 (and so on depending on the number of options you selected in the previous step).

\_\_\_\_\_\_ Across trials: 5% fastest and 5% slowest RTs are removed (1)

\_\_\_\_\_\_ Across trials: RTs +- 2 SD from the mean are removed (2)

\_\_\_\_\_\_ Across trials: RTs +- 2.5 SD from the mean are removed (3)

\_\_\_\_\_\_ Across trials: RTs +- 3 SD from the mean are removed (4)

\_\_\_\_\_\_ Across trials: RTs +- 3 SD from the mean are replaced by the mean +- 3 SD (i.e., the end of the distribution) (5)

\_\_\_\_\_\_ Across trials: RTs beyond third quartile + 3\*interquartile range are removed (6)

\_\_\_\_\_\_ Per item: RTs +- 2.5 SD from the item-specific mean are removed (7)

\_\_\_\_\_\_ Per item: RTs +- 3 SD from the item-specific mean are removed (8)

\_\_\_\_\_\_ Per item: RTs +- 2 SD from the item-specific mean are replaced by the mean +- 2 SD (i.e., the end of the distribution) (9)

\_\_\_\_\_\_ Per participant: Remove 5% fastest and 5% slowest RTs (10)

\_\_\_\_\_\_ Per participant: RTs +- 2 SD from the participant-specific mean are removed (11)

\_\_\_\_\_\_ Per participant: RTs +- 2.5 SD from the participant-specific mean are removed (12)

\_\_\_\_\_\_ Per participant: RTs +- 3 SD from the participant-specific mean are removed (13)

\_\_\_\_\_\_ Per participant: RTs +- 5 SD from the participant-specific mean are removed (14)

\_\_\_\_\_\_ Per participant: RTs +- 2 SD from the participant-specific mean are replaced by the mean +- 2 SD (i.e., the end of the distribution) (15)

\_\_\_\_\_\_ Per participant: RTs +- 2.5 SD from the participant-specific mean are replaced by the mean +- 2.5 SD (i.e., the end of the distribution) (16)

\_\_\_\_\_\_ Per condition (related vs. unrelated): RTs +- 2.5 SD from the condition-specific mean are removed (17)

\_\_\_\_\_\_ Per condition (related vs. unrelated): RTs beyond third quartile + 1.5\*interquartile range are removed (18)

\_\_\_\_\_\_ Per condition (related vs. unrelated): RTs +- 2 SD from the condition-specific mean are replaced by the mean +- 2 SD (i.e., the end of the distribution) (19)

\_\_\_\_\_\_ Per condition (related vs. unrelated) and item combination: RTs +- 2.5 SD from the condition-by-item specific mean are removed (20)

\_\_\_\_\_\_ Per condition (related vs. unrelated) and participant combination: RTs +- 2 SD from the condition-by-participant-specific mean are removed (21)

\_\_\_\_\_\_ Per condition (related vs. unrelated) and participant combination: RTs +- 2.5 SD from the condition-by-participant-specific mean are removed (22)

\_\_\_\_\_\_ Per condition (related vs. unrelated) and participant combination: RTs +- 3 SD from the condition-by-participant-specific mean are removed (23)

\_\_\_\_\_\_ Per block (of 100 trials) and participant combination: RTs +- 3 SD from the block-by-participant-specific mean are removed (24)

\_\_\_\_\_\_ Keep trials regardless (25)

End of Block: Block 18

Start of Block: Block 35

Q58 Do you have any comments, suggestions, alternative options? Note that remarks about the analyses as such are meant to be addressed later in the survey.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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End of Block: Block 35

Start of Block: Block 36

Q59 Based on your answers on the previous questions, we have selected all of your best/most preferred options. However, the outcome of the analysis can be affected by the order in which these steps are carried out. Hence, we now ask you to indicate your preferred order of steps with 1 being the first step, 2 being the second step and so on. Notice that we have added a few steps ourselves that would need to be done regardless, given the current research question, namely removing nonword trials, removing filler word trials (e.g., prime trials), and performing a z-transformation on every participants’ RTs. However, the timing of these steps could impact the outcome, which is why they are included at this point. Also, we listed the analysis steps, which should be the final part of the pipeline: calculating item-level priming effects per language and correlating item-level priming effects across languages. Click the arrow button to proceed.

End of Block: Block 36

Start of Block: Block 20

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|  |

Q37 Below you'll find your top choices from the previous questions ("Keep all" options are not shown to avoid confusion). Please specify the order in which you would carry them out with 1 being the first step, 2 being the second step and so on. If you have any comments, feel free to include them in the box on the next page. *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${QID1/ChoiceGroup/SelectedChoicesForAnswer/1} (1)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${QID2/ChoiceGroup/ChoiceWithLowestValue} (2)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${QID3/ChoiceGroup/SelectedChoicesForAnswer/1} (3)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should ge... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${QID4/ChoiceGroup/ChoiceWithLowestValue} (4)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${QID5/ChoiceGroup/SelectedChoicesForAnswer/1} (5)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet still appropriate by assigning a number. So, the best/most preferred option in your opinion should ge... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${QID6/ChoiceGroup/ChoiceWithLowestValue} (6)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${QID7/ChoiceGroup/SelectedChoicesForAnswer/1} (7)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${QID8/ChoiceGroup/ChoiceWithLowestValue} (8)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${QID9/ChoiceGroup/SelectedChoicesForAnswer/1} (9)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q10/ChoiceGroup/ChoiceWithLowestValue} (10)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q11/ChoiceGroup/SelectedChoicesForAnswer/1} (11)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q12/ChoiceGroup/ChoiceWithLowestValue} (12)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q13/ChoiceGroup/SelectedChoicesForAnswer/1} (13)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q14/ChoiceGroup/ChoiceWithLowestValue} (14)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep items regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q15/ChoiceGroup/SelectedChoicesForAnswer/1} (15)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep items regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q16/ChoiceGroup/ChoiceWithLowestValue} (16)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep trials regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q17/ChoiceGroup/SelectedChoicesForAnswer/1} (17)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep trials regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q18/ChoiceGroup/ChoiceWithLowestValue} (18)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep trials regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q19/ChoiceGroup/SelectedChoicesForAnswer/1} (19)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep trials regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q20/ChoiceGroup/ChoiceWithLowestValue} (20)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep trials regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q21/ChoiceGroup/SelectedChoicesForAnswer/1} (21)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep trials regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q22/ChoiceGroup/ChoiceWithLowestValue} (22)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q23/ChoiceGroup/SelectedChoicesForAnswer/1} (23)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q24/ChoiceGroup/ChoiceWithLowestValue} (24)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q25/ChoiceGroup/SelectedChoicesForAnswer/1} (25)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q26/ChoiceGroup/ChoiceWithLowestValue} (26)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep participants regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q27/ChoiceGroup/SelectedChoicesForAnswer/1} (27)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep participants regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q28/ChoiceGroup/ChoiceWithLowestValue} (28)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep items regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q29/ChoiceGroup/SelectedChoicesForAnswer/1} (29)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep items regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q30/ChoiceGroup/ChoiceWithLowestValue} (30)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep trials regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q31/ChoiceGroup/SelectedChoicesForAnswer/1} (31)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep trials regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q32/ChoiceGroup/ChoiceWithLowestValue} (32)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep trials regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q33/ChoiceGroup/SelectedChoicesForAnswer/1} (33)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep trials regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q34/ChoiceGroup/ChoiceWithLowestValue} (34)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) = 1

And Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... != Keep trials regardless [ Appropriate ]

\_\_\_\_\_\_ ${Q35/ChoiceGroup/SelectedChoicesForAnswer/1} (35)

Display This Choice:

If Which option(s) do you deem appropriate? If you want to read the task instructions again, click h... [ Appropriate] (Count) > 1

And And Order the options you deemed appropriate from best/most preferred to worst/least preferred, yet s... Keep trials regardless Is Not Equal to 1

\_\_\_\_\_\_ ${Q36/ChoiceGroup/ChoiceWithLowestValue} (36)

\_\_\_\_\_\_ Remove all nonword trials (37)

\_\_\_\_\_\_ Remove all filler word trials (e.g., prime trials) (38)

\_\_\_\_\_\_ Perform a z-transformation on every participants' RTs. (39)

\_\_\_\_\_\_ Calculate item-level priming effects per language (40)

\_\_\_\_\_\_ Correlate item-level priming effects across languages (41)

End of Block: Block 20

Start of Block: Block 37

Q60 Do you have any comments or clarifications regarding the ordering of the processing and analysis steps?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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End of Block: Block 37

Start of Block: Block 38

Q61 Thus far, we have assumed the analysis part of the pipeline to be fixed. Which alternative approaches (if any) do you envision to quantify the stability of item-level priming effects across languages? Please be as specific as possible about the concrete statistical test or parameter in a model that would allow us to answer this question. *If you want to read the task instructions again,* click here*; if you want to inspect a sample of the data, click here: [*data*][*stimuli*]*

* No alternative approach (1)
* Alternative approach, namely: (2) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Page Break |  |

Display This Question:

If Thus far, we have assumed the analysis part of the pipeline to be fixed. Which alternative approa... != No alternative approach

Q62 Would you change any of the data-processing steps, if you’d perform your suggested analyses? If yes, please explain what you would change.

* No (1)
* Yes, namely: (2) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End of Block: Block 38

Start of Block: Block 19

Q38 How would you rate your expertise in this subject area, and the confidence in your answers?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Very low (1) | Low (2) | Moderate (3) | High (4) | Very high (5) |
| Expertise (1) |  |  |  |  |  |
| Confidence (2) |  |  |  |  |  |

End of Block: Block 19