**OSF Registration Template Qualitative Research**

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### Registration Metadata

1. Title: **Inhibition of manual gestures by salient distractor stimuli**
2. Description: In this project, we want to estimate the effect size and variability of the inhibition of hand movements in the presence of salient distractor stimuli in the environment. We will conduct an online study with two tasks that are known to elicit saccadic inhibition, adapted for hand movements.
3. Contributors:
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4. Affiliated Institution
   1. Humboldt Universität zu Berlin
   2. Berlin School of Mind and Brain
5. License
   1. ???
6. Subjects
   1. Cognitive Science
   2. Psychology
7. Tags (optional)
   1. Motor plan selection, perception and action, hand movements, eye movements, saccadic inhibition, motor inhibition

### Study Information

1. Research Aims:
   1. We want to explore the manual inhibition effect in response to salient distractors. Previous work has shown inhibition of button presses when a salient distractor was shown almost simultaneously with the movement target. This research has also already shown that this effect is rather small, but can be reliably estimated with a large number of trials per observer.
   2. Instead of measuring the inhibition of button presses, we will measure the inhibition of reaching & pointing movements on a touchscreen. The effect size and variability across observers in our particular task is unclear. The study will be conducted online, which adds another level of uncertainty about the variability in response.
   3. We want to quantify the effect size of the inhibition and the variability in the timing and spatial accuracy of observer’s responses in our online tasks. Both measures will be used to define how many subjects and trials per condition will be needed to find a robust effect. These parameters will be applied to an independent study.
2. Research question(s)
   1. We are working under the hypothesis that the movement onset rate will drop after a salient distractor has been presented.
   2. How much the frequency of manual movement onsets drop after a salient flash has been presented?
   3. How variable is the onset of movements?
   4. How variable is the end point of the movement?
3. Anticipated Duration
   1. Estimated project start date (09/2021)
   2. Estimated project end date (11/2021)

### Design Plan

1. Study design
   1. The study is a psychophysical experiment, involving speeded responses to stimuli on a screen.
   2. In the first part of the study, participants will place their index finger on a central dot on the screen. After a variable delay, this dot will jump, either to the left or to the right (go signal). After another delay of up to 70 ms, one of 4 manipulations will be shown.   
      Manipulation 1) null condition, nothing happens.

Manipulation 2) secondary jump: the jumped dot jumps a second time, by about it’s own size. This secondary jump can happen in the same direction as the first jump (towards the border or the screen), or in the opposite direction (towards the screen center).

Manipulation 3) flash: the upper and lower third of the screen turn white for 50 ms, producing a short and salient flash.

Manipulation 4) flash + secondary jump: at the same time as the dot jumps, the flash is shown on the screen.   
Participants will be instructed to touch the jumped dot as quickly as possible after the first jump. Imprecise answers (within 100 pixels of the target) will be counted as correct, but answers that were too slow (reaction times longer than 500 ms) will be repeated.

* 1. In the second part of the experiment, participants will be instructed to collect a series of 6 dots that appear jittered around a central line (on average spaced apart by xxx pixel and aligned to the center of the screen, with a jitter of up to 20 pixel). As soon as a dot was touched, they disappear from the screen. After a delay of up to x ms, one of the following manipulations will be shown:
     1. Null: The array remains unchanged, and no distractor is shown
     2. Jump: All remaining dots jump to a new random location
     3. Flash: The upper and lower third of the screen turn white for 50 ms, producing a salient flash
     4. Jump + Flash: at the same time as the array changes configuration, the flash is shown.

1. Sampling and case selection strategy (required)
   1. Participant sampling: we will recruit participants through the platform prolific. We will screen them for normal vision and will require them to speak English fluently (to make sure they’ll understand the instructions) but will not restrict any other parameters.

### Data Collection

1. Data source(s) and data type(s) (required)
   1. Please describe the type(s) of data you will be using. In describing the data, distinguish between data that existed prior to your study (e.g. archival documents, newspaper articles, [social] media, secondary literature, or data collected for a different purpose than the current study) and original data (i.e. data that will be collected/generated for the current study).
2. Data collection methods (required)
   1. Please describe your method of data collection or data generation. Examples of methods include (but are not restricted to) interviews, focus groups, enabling techniques, self-reports, field notes, diaries, (participative) observation, archival research, or mixed methods. Please provide a brief rationale for why you plan to use this particular data collection/generation method in your study.
3. Data collection tools, instruments or plans (required)
   1. Please describe or upload the tools, instruments or plans you will use in collecting or generating your data. Examples could be (but are not limited to): topic guide, interview questionnaire, focus group guide, observation scheme, creative tools (e.g. photos, videos, musical pieces, paintings, etc.), or a description of your archival search plans.
4. Stopping criteria (required)
   1. Please describe the criteria or rationale behind when you will stop data generation or collection. Possible criteria include (but are not restricted to): data saturation\*, when inclusion criteria are satisfied, resource constraints (e.g. time/funding), or when the analysis has produced an enriching answer to the research question(s).
   2. **Example**: We follow Fusch & Ness (2005) and interpret saturation to be reached when there is enough information to replicate the study, the ability to obtain new information has been attained, and further coding is no longer feasible.

### Analysis Plan

1. Data analysis approach (required)
   1. Please specify the type and details of your data analysis approach. Examples of approaches include (but are not limited to): narrative analysis, phenomenological analysis, thematic analysis, content analysis, psychoanalytic analysis, grounded theory, process tracing, comparative analysis, or discourse analysis. If multiple interpretations of your approach exist, please specify the version you will be using. Please provide a rationale for why your selected data analytic approach is appropriate given your study’s aim(s).
   2. **Example**: If you indicated ‘phenomenological analysis’, you may want to specify the theorist whose approach you are following, e.g. “We use a phenomenological approach as explained by Colaizzi (1978)”; or if you indicated ‘content analysis’, a specification could be: “We apply inductive content analysis as described in Elo & Kyngäs (2008)”.
2. Data analysis process (required)
   1. Please describe what your process of data analysis will look like. Questions to keep in mind could be (but are not limited to):

\* who will be involved in the data analysis, and in what role?

\* if relevant, indicate any procedures that will be used to turn “raw” data into analyzable form (e.g., a coding scheme)

\* if relevant, indicate any evidentiary criteria that will be used to assess any hypotheses (e.g., what evidence will count as consistent or inconsistent with a given proposition)

\* if relevant, what software or analytic tools will you use and how will you use them?

1. Credibility strategies (required)
   1. Please specify the strategies, actions or measures you will employ to assure methodological integrity. Examples include (but are not limited to):
      1. Member checking
      2. Triangulation with other data sources
      3. Bringing in different perspectives
      4. Have different researchers analyse the data
      5. Consensus building among team members or 'interrater reliability'
      6. Negative case analysis
      7. Peer debriefing
      8. Cross-checks for rivalling explanations
      9. Bring in an 'auditor'
      10. Reflexitivity
      11. Verisimilitude
      12. Emotionality
      13. Personal Responsibility
      14. An ethic of caring
      15. Political praxis
      16. Multivoiced texts
      17. Dialogues with subjects
      18. Other (please explain)
   2. Please provide a short rationale for why you selected particular strategies and how they are appropriate given your study’s aim(s) and approach, or specify your credibility strategies if not on the above list. (required)

### Miscellaneous

1. Reflection on your positionality (optional)
   1. Feel free to reflect on your relation to or association with the studied phenomenon and your position in the research setting/field, including your academic/personal standpoints, assumptions and values.   
        
      In addition, if there is a potential conflict of interest [whether you have a previous relationship with the studied phenomenon, and if you consider that there are previous positions or assumptions that may influence the present study] that can arise, you may want to report that here.
   2. **Example**: If you study the lives of detained immigrants, you might want to talk about your political viewpoints, experience working with detained immigrants, relevant policy work, or perhaps your own experience as a detained immigrant.