Experiment Design

Design etc. according to paper by Farr (2011):

"Test whether the predictions with respect to the influence of focus on CP are right."

- Six minimal context pairs - only differing in question asked
    - question: "*what-if-p"* (focus on consequent of conditional)
      or *"when-q"* (focus on antecedent) (*"under-which-conditions-q"* would be possible as well, but was not used)
    - answer: *"if p, q"*

"To promote a conditional reading, we did **not** include term referring to **temporal aspects** within the contexts of the test items"

- ensure that "If p, q" rather than "When p, q" is not surprising or unintuitive
- This means, to formulate German questions and answers we should use "in welchem Fall", "unter welchen Umständen" for *"when-q"*, "falls" for "*what-if-p"* and *"if p, q"*

Felicity Judgment Task (FJT)

Participants should **judge whether answer provided by conditional is sufficient**

Test items should specify **two conditions** leading to particular **consequent**

- participants should rate conditional answer as **insufficient** when CP occurred, i.e. when the answer was interpreted as "*if and only if p, q*"
- if **focus** influences CP subjects should rate conditional answer **more often as insufficient** in *"when-q"* than in *"what-if-p"* condition
- Example on page 9/15:

> Monika sells seafood on the market. She gets 1 euro for a crab, **2.50 euros for an eel**, 15 euros for a lobster and **2.50 euros for a pike**.
> Kerstin, an employee of Monika, cannot remember the prices. Since she does not want to ask Monika again, she asks Sahra, who also works for Monika. Sahra knows the prices exactly.
>
> what-if-p: Kerstin: What happens if I sell an eel? (focus on antecedent, i.e. "sell an eel")
> when-q : Kerstin: When do I get 2.50 euros? (focus on consequent, i.e. "get 2.50 euros")
>
> Sahra: If you sell an eel, you get 2,50 euros.
>
> Did Sahra answer Kerstin's question sufficiently? [Yes] [No]

Repeated-measures design

- six test items (three with *"what-if-p"*, three with *"when-q"*, answer is always *"if p, q"*)
- six fillers per questionnaire of which three are true and three are false
    - three fillers - check whether participants are able to understand conditionals as answers to questions in general
        - similar to test items, but only one antecedent for each consequent
        - **true conditional filler:** conditional answer corresponds to what has been described in context
        - **false conditional filler:** wrong antecedent for consequence
    - three fillers - check whether subjects are sensitive for exhaustification
        - two conditions leading to same consequent are specified
        - answer **not in conditional form** but statement starting with *"only"*
        - **true exhaustification filler:** answers provide both conditions specified by context
        - **false exhaustification filler:** only one of these
        - "Thus, if participants are in fact sensitive to exhaustification they should rate the response **sufficient** in the **true** condition and **insufficient** in the **false** condition"
- two versions of questionnaire - items and fillers in pseudo-random order
- no more than two test items in a row (same ensured for fillers)
- "The second version of the questionnaire contained in each case the other condition of items and fillers and in the inverse order as in version one."

Experiment Procedure

- Written instructions on first page
- Oral instructions (should we do this too?)
- Three items/fillers printed on one page (makes only sense on paper, we can do one per screen.)
- Information on background knowledge of **logic** and **pragmatics** (what information should we ask for here since we won't use linguistics students exclusively? We could still ask for this, as we won't know background of all participants)
- Space for comments
- About 15 minutes for questionnaire (the students took that time, there was no restriction)

- 50 students from introductory linguistics class, 2 exclusions -> evaluation of data of 48 participants
- Exclude participants with incorrect answers to three or more fillers

Truth Value Judgment (TVJ)

Follow-up experiment - which we will replicate

"If this experiment yields the same results as the first experiment we can conclude that if and or behave differently when located in focus"

Same items, but answers changed from “Did X answer Y’s question sufficiently?” to “**Is the answer of X <u>true</u>?**”

Identical procedure, design, instructions

36 participants from introductory linguistics class
- two participants excluded - substantial knowledge of implicature theory
- one excluded incorrect answer to three or more fillers
- evaluation of data of 33 participants

What we have to do for our replication study

- Write introductory text explaining the task (+ invitation text appended to the link we will send around)
  include:
  - Why this task? (purpose - replication study for university)
  - How long does it take? (around 15 minutes (according to paper by Farr))
  - What should they do? (read task/question carefully, answer with yes or no)
  - Is it better to ask them to answer intuitively or think carefully about each item? What if they overthink it?
  - State that they should concentrate and not distract themselves
  - Tell them data will be anonymized etc.
  - Who is doing the task? (students from university for a course)
  - State that they can take a break between phrases? (do they? :D)

- Create filler and test items for **TVJT**

- Create _magpie environment
  - Instruction page (see above)
  - filler and test sentences (each on one page?) - pseudo-random order
  - include fixation and pause time (no feedback?)
    - fixation does not make sense, we do not have a visual task
    - pause time is not necessary as participant can do task on own pace
    - feedback is not helpful as we would give away internal information/what are - test and filler items + feedback is difficult to give for test items as we ask for the intuition of CP which is not true or false
    - original experiment was on paper, they could start with the next sentence in their own pace: read context on first click, then Q, then A, then the True/False question?
  - post test questions: information slide asking about participant’s background (what information is necessary?)
    - background knowledge of **logic** and **pragmatics**
    - professional background / study background to find out if they were ever in touch with linguistics
  - possible final slide giving more background information just to inform them if they are interested?

- Write pre-registration report

- Recruit participants
    - How many should we aim for? Ideally 50, 40 is also fine?

- Perform analysis
    - exclude participants the same way like in the paper? I.e. too much linguistic background knowledge and too many fillers answered incorrectly
    - Is there helpful material / tutorial for logistic regression?

- Write paper
    - Any specific template for LaTeX?