

**COLUMBIA UNIVERSITY
INFORMED CONSENT DOCUMENT**

Collecting Rationales for Language Generation (Protocol AAAT7070)

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Investigators' statement

We are asking you to be in a research study from the computer science department at Columbia University. The purpose of this consent form is to give you the information you will need to help you decide whether or not to be in the study. Please read the form carefully. You may ask questions about the purpose of the research, what we would ask you to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When all your questions have been answered, you can decide if you want to be in the study or not. This process is called 'informed consent.'

PURPOSE

This is a research activity, whose goal is to collect justifications for how humans reason about language. We will compare the justifications provided by humans to machine-produced justifications, and study their similarities and differences. We will release an anonymized version of the dataset to the machine learning research community.

PROCEDURES

You are taking part in this study as either a selector or a guesser.

As a selector, you will be presented with a paragraph of text. Your goal is to select the words that you think are necessary for predicting the last word of the paragraph. Your goal is to select words so that someone else could guess the last word correctly based only on the words you select. The order of the words is important: you should add the most helpful words first, and you will receive extra compensation if the guesser can predict the last word earlier rather than later. You will only order the 20 most important words in the paragraph. This should take you about 2 minutes for each paragraph you choose to annotate. You can annotate up to 500 paragraphs.

As a guesser, you will be presented with words from the same paragraph, and your goal is to predict the last word. You will start by only seeing the word directly before the last word, and the words selected by the selector will be revealed to you one-by-one. You will predict the last word each time a new word is revealed to you. You will not be told if you are right or wrong, and the words will be revealed until all of the words chosen by the annotator are present. This process should take you around 2 minutes. You can annotate up to 500 paragraphs.

For each option, we will provide a one-time screening to assess the annotation quality. The screening will be a smaller version of the same task you have chosen to complete. If your answer is similar to the answer we had in mind, we will open up the task to you.

Subjects may refuse to answer any question or item in any test, inventory, questionnaire, or interview.

RISKS, STRESS, OR DISCOMFORT

The passages do not include any obscene or adult material. We have done our best to exclude passages that may pose any possible triggers.

We will also receive subjects' MTurk IDs for future compensation. We will delete all MTurk IDs when we are finished collecting data, so there is a minimal chance of breach of confidentiality.

BENEFITS

Our experimental study resembles a game that some people may find enjoyable -- guessing words based on context is similar to solving crossword puzzles or playing the game Codenames. The passages also come from (unpublished) works of fiction, so we hope you enjoy reading some of them.

We will be using the information you provide us with as a proxy for how humans reason about language. We will compare human linguistic reasoning to justifications provided by machine learning language models. This will help us understand whether machines reason about language in the same way as humans. There are not many existing datasets that contain human rationales for language, so we hope that releasing this dataset will help catalyze research into this area.

OTHER INFORMATION

We will use Mechanical Turk Worker IDs in order to provide bonus compensation and to make sure that the same Workers are not in the two groups (selectors and guessers). It may be possible to link MTurk Worker IDs to information on Amazon public profiles if the settings are set in such a way. However, we will not include the Worker IDs as part of the research data we are collecting, and we will discard them once the data collection is complete. Subjects may refuse to participate or may withdraw from the study at any time without penalty or loss of benefits to which they are otherwise entitled. Subjects will receive monetary compensation for each example they complete, and selectors may receive bonus compensation depending on how quickly guessers can predict the correct words from their annotations.

PARTICIPATION

Participation in research is entirely voluntary. You may refuse to participate or withdraw from participation at any time without jeopardizing your employment, student status or any other entitlements. The investigator may withdraw you at his/her professional discretion.

ALTERNATIVES TO PARTICIPATION

No alternatives other than non participation are available to participants.

PRIVATE INFORMATION

Any information derived from this research project that personally identifies you will not be voluntarily released or disclosed without your separate consent, except as specifically required by law. The only personal data we will collect is Worker IDs, and we will delete these when data collection is complete.

The following individuals and/or agencies will be able to look at and copy your research records:

- The investigator, study staff and other professionals who may be evaluating the study
- Authorities from Columbia University, including the Institutional Review Board ('IRB')

- The United States Office of Human Research Protections ('OHRP')

CONTACT INFORMATION

If at any time you have questions regarding the research or your participation, you should contact the investigator, Keyon Vafa, who will answer all questions. His telephone number is (617) 221-3168. You should also contact the investigator or a member of the research staff if you have any concerns or complaints about the research.

If at any time you have comments regarding the conduct of this research or questions about your rights as a research participant, you should contact the Institutional Review Board (IRB) Administrator at (212) 305-5883 or askirb@columbia.edu.

PARTICIPANT'S STATEMENT

I have read the above purpose of the study, and understand my role in participating in the research. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later, about the research, I can ask the investigator listed above. I understand that I may refuse to participate or withdraw from participation at any time without jeopardizing my employment, student status or other rights to which I am entitled. The investigator may withdraw me at his/her professional discretion. If I have questions about my rights as a research participant, I can call the Institutional Review Board office at (212) 305-5883. I certify that I am 18 years of age or older and freely give my consent to participate in this study. I will receive a copy of this document for my records.

