

# Metalinguistic Disagreement Detection Study: Information Sheet

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## Study Purpose

This study aims to create a benchmark dataset for the detection of metalinguistic disagreements between LLMs and knowledge graphs. Your participation will help advance our understanding of how large language models interpret and disagree about meaning in the context of ontology and knowledge engineering.

## Background

Metalinguistic disagreement occurs when people argue about the meaning or use of words rather than about facts or ideas. In contrast, a factual disagreement is about what is actually true in the world. Examples of factual disagreement are debating whether a tomato is healthier than an apple, or debating whether Sarah is taller than John; in contrast, examples of metalinguistic disagreement are arguing whether a tomato should be called a fruit or a vegetable, or arguing about what height qualifies as “tall” when describing a person.

## What Participation Involves

If you choose to participate, you will:

1. Read a set of annotation guidelines
2. Review 20 pairs of Wikipedia page summaries and related statements
3. For each pair, indicate if you disagree with the statement
4. If you disagree, specify whether your disagreement is based on the fact of the statement or on the meaning of the one or more of the terms used in the statement

The task will be conducted entirely online using a Web interface generated by Potato, an open-source annotation tool. The estimated time commitment is 45 minutes.

## What Participation Requires

To participate, you must be fluent in English and have not taken part in any initial pilot version of this study.

## Data Collection and Confidentiality

- All data will be collected through a Web site that is designed for you to annotate the 20 pairs assigned to you. This site will require you to register as an annotator using your email address. You will not be asked to provide any other personally identifiable information.
- The data collected will be used solely for research purposes and may be included in academic publications or presentations. However, no individual responses will be identifiable.

## Risks and Benefits

- Risks: This study involves minimal risk. You may experience minor fatigue from screen use or mental effort during the annotation task.

- Benefits: While there are no direct personal benefits, your participation contributes to advancing research in natural language understanding, large language models, and knowledge engineering.

## Voluntary Participation and Right to Withdraw

- Your participation is entirely voluntary.
- You have the right to withdraw from the study at any time without giving a reason.
- If you wish to withdraw your data after completing the study, you may do so by contacting the research team via email up until [two weeks after your registration on the annotation Web site.

## Questions or Concerns

If you have any questions or concerns about this study, please contact:

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This study has been reviewed and approved by the Ethics Committee for Information Sciences (ECIS) of the Institute for Informatics.