

Two minds are not always better than one: Modeling evidence for a single sentence analyzer

Supplementary Materials

1. Experimental items from Experiments 1 and 2

- 1 a The slogan on the posters unsurprisingly was designed to get attention.
- 1 b The slogan on the poster unsurprisingly was designed to get attention.
- 1 c The slogan on the posters unsurprisingly were designed to get attention.
- 1 d The slogan on the poster unsurprisingly were designed to get attention.
- 2 a The picture on the fliers definitely was of a village church in the south of France.
- 2 b The picture on the flier definitely was of a village church in the south of France.
- 2 c The picture on the fliers definitely were of a village church in the south of France.
- 2 d The picture on the flier definitely were of a village church in the south of France.
- 3 a The mistake in the programs certainly was disastrous for the small software company.
- 3 b The mistake in the program certainly was disastrous for the small software company.
- 3 c The mistake in the programs certainly were disastrous for the small software company.
- 3 d The mistake in the program certainly were disastrous for the small software company.
- 4 a The label on the containers probably was a warning about the hazardous chemicals inside.
- 4 b The label on the container probably was a warning about the hazardous chemicals inside.
- 4 c The label on the containers probably were a warning about the hazardous chemicals inside.
- 4 d The label on the container probably were a warning about the hazardous chemicals inside.
- 5 a The problem in the stores ultimately was solved by firing the custodian.
- 5 b The problem in the store ultimately was solved by firing the custodian.
- 5 c The problem in the stores ultimately were solved by firing the custodian.
- 5 d The problem in the store ultimately were solved by firing the custodian.
- 6 a The name on the billboards probably was of a prominent local businessman.
- 6 b The name on the billboard probably was of a prominent local businessman.
- 6 c The name on the billboards probably were of a prominent local businessman.
- 6 d The name on the billboard probably were of a prominent local businessman.
- 7 a The crime in the suburbs doubtlessly was a reflection of the violence in today's society.
- 7 b The crime in the suburb doubtlessly was a reflection of the violence in today's society.
- 7 c The crime in the suburbs doubtlessly were a reflection of the violence in today's society.
- 7 d The crime in the suburb doubtlessly were a reflection of the violence in today's society.
- 8 a The defect in the appliances likely was unknown to consumers and government regulators.
- 8 b The defect in the appliance likely was unknown to consumers and government regulators.
- 8 c The defect in the appliances likely were unknown to consumers and government regulators.
- 8 d The defect in the appliance likely were unknown to consumers and government regulators.
- 9 a The citation on the notecards unfortunately was quite difficult to track down using the library's limited resources.
- 9 b The citation on the notecard unfortunately was quite difficult to track down using the library's limited resources.
- 9 c The citation on the notecards unfortunately were quite difficult to track down using the library's limited resources.

9 d The citation on the notecard unfortunately were quite difficult to track down using the library's limited resources.

10 a The advertisement on the skyscrapers typically was hard to read except from a long distance away.

10 b The advertisement on the skyscraper typically was hard to read except from a long distance away.

10 c The advertisement on the skyscrapers typically were hard to read except from a long distance away.

10 d The advertisement on the skyscraper typically were hard to read except from a long distance away.

11 a The traitor in the camps regrettably was passing information to the enemy through various secret methods.

11 b The traitor in the camp regrettably was passing information to the enemy through various secret methods.

11 c The traitor in the camps regrettably were passing information to the enemy through various secret methods.

11 d The traitor in the camp regrettably were passing information to the enemy through various secret methods.

12 a The flaw in the arguments usually was clear to everyone in the lecture hall after just five minutes.

12 b The flaw in the argument usually was clear to everyone in the lecture hall after just five minutes.

12 c The flaw in the arguments usually were clear to everyone in the lecture hall after just five minutes.

12 d The flaw in the argument usually were clear to everyone in the lecture hall after just five minutes.

13 a The door to the laboratories accidentally was left unlocked by the cleaning service.

13 b The door to the laboratorie accidentally was left unlocked by the cleaning service.

13 c The door to the laboratories accidentally were left unlocked by the cleaning service.

13 d The door to the laboratorie accidentally were left unlocked by the cleaning service.

14 a The memo from the supervisors unfortunately was about the delinquent tax return.

14 b The memo from the supervisor unfortunately was about the delinquent tax return.

14 c The memo from the supervisors unfortunately were about the delinquent tax return.

14 d The memo from the supervisor unfortunately were about the delinquent tax return.

15 a The check from the stockbrokers happily was a dividend on a long-term bond.

15 b The check from the stockbroker happily was a dividend on a long-term bond.

15 c The check from the stockbrokers happily were a dividend on a long-term bond.

15 d The check from the stockbroker happily were a dividend on a long-term bond.

16 a The key to the cells unsurprisingly was rusty from many years of disuse.

16 b The key to the cell unsurprisingly was rusty from many years of disuse.

16 c The key to the cells unsurprisingly were rusty from many years of disuse.

16 d The key to the cell unsurprisingly were rusty from many years of disuse.

17 a The letter from the investigators allegedly was received in San Francisco in late March.

17 b The letter from the investigator allegedly was received in San Francisco in late March.

17 c The letter from the investigators allegedly were received in San Francisco in late March.

17 d The letter from the investigator allegedly were received in San Francisco in late March.

18 a The entrance to the exhibits evidently was hard to locate on the diagram.

18 b The entrance to the exhibit evidently was hard to locate on the diagram.

18 c The entrance to the exhibits evidently were hard to locate on the diagram.

18 d The entrance to the exhibit evidently were hard to locate on the diagram.

19 a The warning from the experts unsurprisingly was a shock to the residents of the city.

19 b The warning from the expert unsurprisingly was a shock to the residents of the city.

19 c The warning from the experts unsurprisingly were a shock to the residents of the city.

- 19 d The warning from the expert unsurprisingly were a shock to the residents of the city.
- 20 a The bridge to the islands apparently was about ten miles off the main highway.
- 20 b The bridge to the island apparently was about ten miles off the main highway.
- 20 c The bridge to the islands apparently were about ten miles off the main highway.
- 20 d The bridge to the island apparently were about ten miles off the main highway.
- 21 a The gift from the visitors apparently was a beautiful clock from Germany.
- 21 b The gift from the visitor apparently was a beautiful clock from Germany.
- 21 c The gift from the visitors apparently were a beautiful clock from Germany.
- 21 d The gift from the visitor apparently were a beautiful clock from Germany.
- 22 a The path to the monuments happily was lined with lovely trees and flowers.
- 22 b The path to the monument happily was lined with lovely trees and flowers.
- 22 c The path to the monuments happily were lined with lovely trees and flowers.
- 22 d The path to the monument happily were lined with lovely trees and flowers.
- 23 a The message from the engineers regrettably was about the recent weakening to the building's structural supports.
- 23 b The message from the engineer regrettably was about the recent weakening to the building's structural supports.
- 23 c The message from the engineers regrettably were about the recent weakening to the building's structural supports.
- 23 d The message from the engineer regrettably were about the recent weakening to the building's structural supports.
- 24 a The gate to the pastures evidently was falling down due to disrepair.
- 24 b The gate to the pasture evidently was falling down due to disrepair.
- 24 c The gate to the pastures evidently were falling down due to disrepair.

2. Instructions from Experiment 1

Welcome! Thank you for participating in this study for the Linguistics Program at the College of William & Mary. Your participation provides valuable data for the scientific study of language, and is greatly appreciated! Please read the following instructions carefully:

INSTRUCTIONS FOR THE EXPERIMENT

In this experiment, you'll be reading sentences presented to you **one word at a time** at a fixed rate in the middle of the screen. After all of the words of the sentence have been displayed, you will judge whether it was an acceptable/good sentence of English. **An "acceptable" sentence is a sentence that a native speaker of English would be able to say or understand without difficulty.** For example, here's an acceptable sentence:

The professional photographer didn't imply that the fashion magazine had published tasteless photos.

Below is another example of an acceptable sentence.

Frank wondered who he should play with.

We are interested in what YOU think is a good, acceptable sentence of English. We are not interested in what counts as "correct" grammar or speaking. For instance, even though English teachers tell you that it's bad to end a sentence with a preposition, or to split an infinitive, native speakers of English do it all the time, and it sounds perfectly natural. In fact, the "proper" version of the sentence above sounds pretty weird:

Frank wondered with what he should eat.

An unacceptable sentence is one that no native speaker of English would produce, even if it sort of makes sense. Here are some examples of unacceptable sentences:

- *The meek boxer who trained with the persistent coach shockingly were brutal in the boxing ring.*
- *The old rancher who listened to the dishonest salesman unsurprisingly isolated themselves in a huge ranch on the hill.*
- *Frank thought about what he should eating later that afternoon when he got home from school.*

Sometimes you may feel unsure as to whether a sentence is acceptable, but you should just go with your first gut impression. There are no wrong answers and no trick sentences, just make sure you understand what you read and go with your gut reaction. Do *NOT* rely on the length of the sentence to judge if it is good or bad. A complex sentence may be difficult to understand at first, but there may be nothing wrong with it.

To enter your response, you will press the F and J keys. If the sentence you just read is an acceptable sentence, press the F key for 'Yes'. If the sentence is unacceptable or bad, press the J key for 'No'. You will only have 3 seconds to respond to each sentence, so keep your fingers on the F and J keys to respond as quickly as possible. If you miss too many responses, we will take that as indication that you are not completing the task as instructed and under those circumstances, we cannot pay you for the HIT.

Note that we have included baseline sentences interspersed throughout the experiment. These sentences are easy to judge, so if you're paying attention you'll have no problem responding appropriately. If you get too many of these incorrect, we will take that as an indication that you are either not a native speaker or were not giving the task your full attention. Under those circumstances, we cannot pay you for the HIT.

At the end of the task, you will be presented the code for payment. Enter this code into the Mechanical Turk form for this task to receive payment.

We will first work through a few practice examples, and then we'll begin the actual task. It's important that you pay close attention when the sentences are being presented to you, because some of them are quite long.

Begin by filling in the following information ...

3. Instructions from Experiment 2

Welcome! Thank you for participating in this study for the Linguistics Program at the College of William & Mary. Your participation provides valuable data for the scientific study of language, and is greatly appreciated! Please read the following instructions carefully:

INSTRUCTIONS FOR THE EXPERIMENT

In this task, you will read 72 sentences, and determine whether each sentence is a natural, acceptable sentence of English. By "natural" and "acceptable", we mean that the sentence is stated in a way that a native English speaker could say it or could understand it without difficulty. Some of the sentences will be perfectly acceptable, some sentences will be clearly bad, and some might be in the middle. For each sentence, you will respond "Yes" or "No" to indicate whether it is an acceptable sentence.

The survey will display one sentence on the screen at a time. You can take as long as you'd like to read each sentence, so long as you finish within the 1-hour time limit. For most people, the survey takes around 20-25 minutes to complete.

Read each sentence carefully, paying special attention to any errors that may be encountered. **To enter your judgment, press the F and J keys.** If the sentence is acceptable and free of errors, press the F key for 'Yes'. If the sentence is unacceptable or contains errors, press the J key for 'No'.

For example, here's an acceptable sentence:

The professional photographer didn't imply that the fashion magazine had published tasteless photos. (= Yes)

Here is another example of an acceptable sentence.

Frank wondered who he should play with. (=Yes)

An unacceptable sentence is one that no native speaker of English would produce, even if it sort of makes sense. Here is an example of an unacceptable sentence.

Sally said that she wanting to go to the store today. (= No)

We are interested in what YOU think is a good, acceptable sentence of English. We are not interested in what counts as "correct" grammar or speaking. Even though English teachers tell you that it's bad to end a sentence with a preposition, or to split an infinitive, native

speakers of English do it all the time, and it sounds perfectly natural. In fact, the "proper" version of the sentence above sounds pretty weird:

Frank wondered with what he should eat.

Do *NOT* rely on the length of the sentence to judge if it is good or bad. A complex sentence may be difficult to understand at first, but there may be nothing wrong with it.

When the survey begins, we will go through a couple of practice sentences, which give you feedback about your response. These sentences have the word "practice" written above them in blue. After several practice sentences, you will move onto the actual survey, but you will no longer receive feedback about your responses.

Start by filling out the information below. This information is purely for scientific research conducted at the College of William and Mary. Your responses will remain confidential. If you have any questions or concerns, please contact Dan Parker at dparker@wm.edu.