**Appendix 2 Full procedure Study 2 pre-test**

**Reading pre-test Study 2.** Before the Study 2 was conducted, 41 participants were recruited from Prolific for a reading pre-test. This was to determine the average time it took participants to read the phrases and make a response, and thus informed the decision to set the response deadline in Study 2 to three seconds. The rationale was that enforcing a strict deadline for participant’s initial response would minimise the possibility of System 2 engagement (see Bago & De Neys, 2019a, 2019b and Raoelison & De Neys, 2019 for similar protocols). Pre-screening ensured the study was only advertised to those aged 18 years or older and who spoke English as their first language.

Participants were excluded from the analysis if they did not complete the survey (these were considered to have withdrawn as per our ethical approval conditions), declared that they had not understood the instructions, did not complete the task in one go, and had been distracted during the task. This left a final sample of 38 (*M* age = 33.55, *SD* = 11.27). Eleven identified as male (*M* age = 31.27, *SD* = 13.98), 26 identified as female (*M* age = 34.96, *SD* = 10.00), and one selected ‘other’ (*M* age = 22).

Using the online Qualtrics platform an information sheet informed participants the purpose of the study was to find out how long it takes people to read certain phrases that we were planning to use in future studies. They would be asked to read 18 short phrases and we would automatically record how long it takes you to read each one. Prolific users were informed that the study was estimated to last 5 minutes and that they would be paid £0.50 on completion. Participants were required to give informed consent via a tick box to confirm that they understood the nature of the study and their right to withdraw.

First, participants were asked to provide their gender and age (optional). The phrases used for the pre-test were identical to those used in the quantity estimate task from Study 1. Participants were asked to read the phrases one at a time and when they were finished reading to randomly click any point on the sliding scale. To ensure the sliding scale was easy to use participants were restricted to using a desktop computer. After a practice question (“Some Experts Suggest…”), participants were shown the 18 phrases - one per page with presentation order randomised. On completion participants were asked to confirm they: (i) understood the instructions, (ii) completed the task in one go without a break and (iii) asked if anything distracted them during the task. Respondents who did not meet these criteria were excluded from data analysis but still paid regardless. The literal instructions seen by participants stated the following:

*“In this task we'll present you with a set of 18 phrases we are planning to use in future studies (these will be phrases commonly used in the media, such as "Scientists believe..." or "Experts agree..."). Your task in the current study is pretty simple: you just need to read these phrases one at a time and then select a point on a sliding scale. We want to know how long people need on average to read the material and move the slider. There is no right or wrong answer. Just read the phrase and when you are finished reading randomly click any point of the scale. When you have selected an answer, click the red box to advance to the next phrase. You'll have the chance to practice on the next page.*

*The only thing we ask of you is that you stay focused on the task. Because we want accurate reading time recordings please make sure to avoid any distractions and complete the task in one go (i.e., please avoid moving away from the desktop, speaking to anyone or looking at other websites until you have completed the task).*

*Please press the red box below to practice this task.”*

On completion participants received a debrief message explaining the purpose of the study, what would happen to their data, and who to contact should they have any questions or concerns. They were given a randomly generated unique ID number to quote should they wish to withdraw. Mean completion time was 3 minutes.

As seen in Table 1, the mean first click time of the sample was 2.03s (*SD* = 0.15s), with the mean for target items being 1.96 (*SD* = 0.14) and filler items 2.09 (*SD* = 0.12). To give participants some minimal leeway and considering the additional cognitive load task the time given to respond in study 2 was rounded up to the closest integer. Hence the response deadline for the main study was set at three seconds.

Table 1. Mean first click and page submit times (s) standard deviations in brackets

|  |  |
| --- | --- |
| First Click | Page Submit |
| Target  | Filler | Overall | Target | Filler | Overall |
| 1.96 (0.14) | 2.09 (0.12) | 2.03 (0.15) | 3.31 (0.23) | 3.56 (0.14) | 3.43 (0.22) |