Accompanying Materials for "On the Interpretation of Uninterpretable Interactions: A Survey of the Field 32 Years after Loftus." A. Results from the Questionnaire.

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A total of 100 participants filled out the questionnaire. Figure 1 shows the participants categorized according to their specialization and level of education.

In the questionnaire, participants first had to indicate their level of agreement on a 5-point Likert scale; the results are reported in the main manuscript. After indicating their level of agreement, participants also had to provide their reasoning according to an open-ended format. After reviewing the answers, we assigned participants' responses to one of the following six categories:

1. **Values-Significance.** Reasoning based on the plotted values and the statistically significant interaction. Example: "The proportion of correct answers in the different conditions is larger for younger adults than it is for older adults."

2. **Theory-Methodology.** Reasoning based on concerns about experimental methodology and theoretical validity about the conclusions. Example: "I highly doubt that the experimental settings are free from confounding variables."

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3. **Post-hoc tests.** Reasoning using the absence of post-hoc tests. Example: "The graph appears to show an interaction but we would need a p-value for a main effect of age."

4. **Value transformation.** Correctly reasoning that the plotted interaction can be transformed away. Any answer that mentioned a possible non-linear relation between theoretical concepts and dependent variables was also scored as correct. Example: "Although the interaction is significant, a transformation can make the interaction disappear."

5. **Mixed.** Reasoning that could be placed in more than one of the above categories, except in the correct category. Example: "In absolute terms both young and old adults showed an equal decrease in performance on the recall test. Apparently there aren't any differences. And since it is known that memory of older adults differs from that of younger adults, these results actually show that study-test interval doesn't have any effect."

6. **Vague Reasoning.** Reasoning that was vague or indicated an explicit lack of understanding. Example: "I am just not sure."

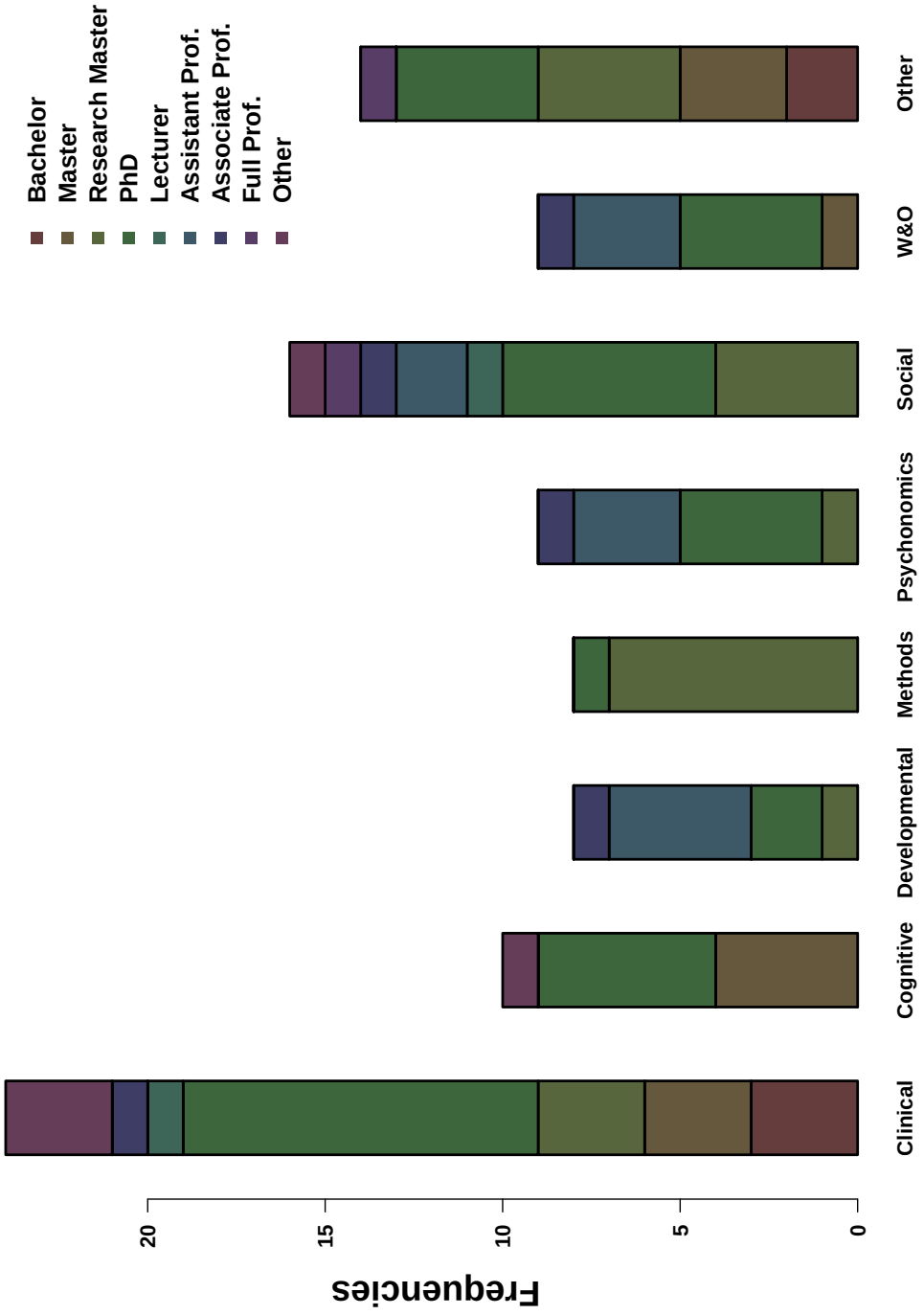

Figure 1. Participants' classification according to their educational level and academic specialization.

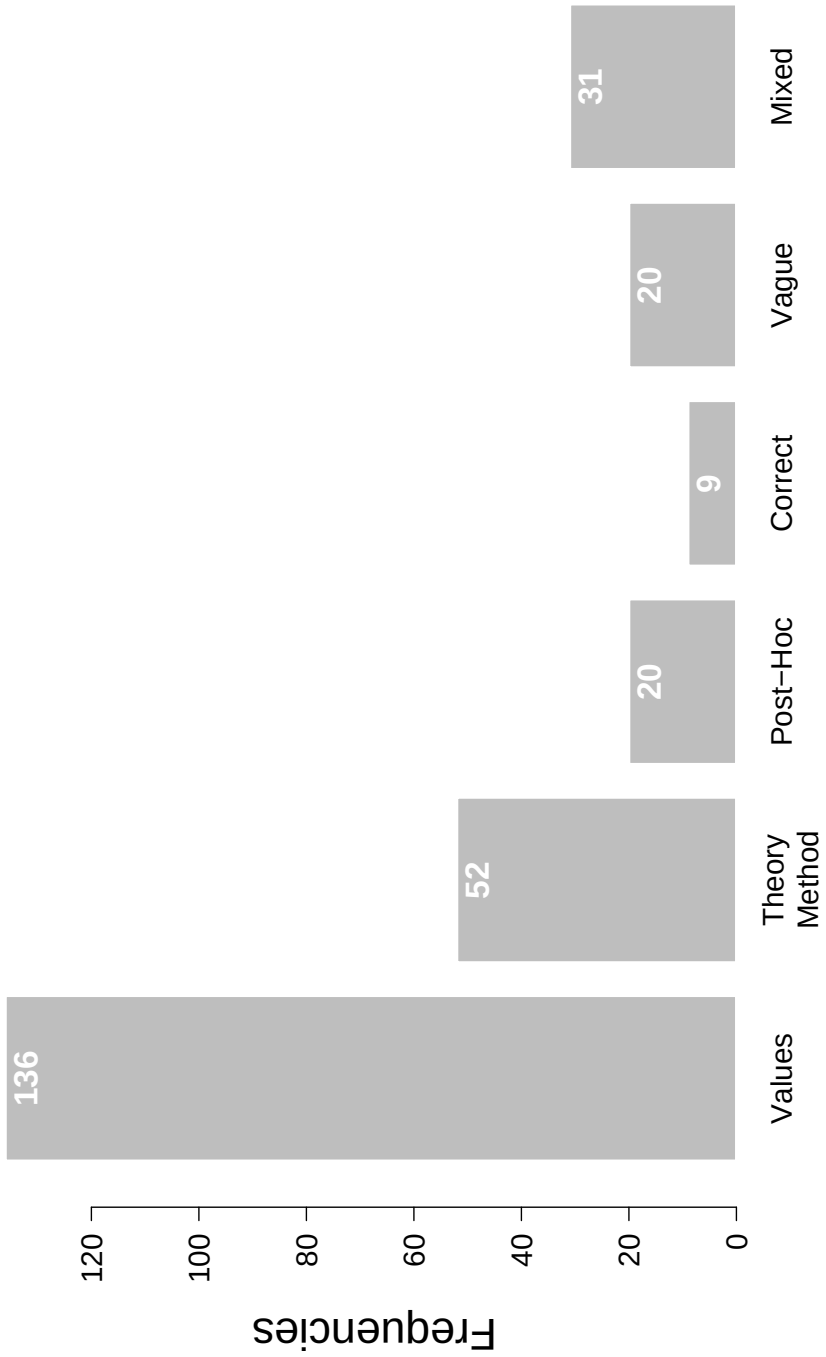

Figure 2. Frequencies for types of open-ended reasoning used by the participants. See text for details. Frequencies are based on the answers of participants to the three different questions. Thirty-two out of 300 open-ended responses were missing.