

## Iroh's Wisdom (#68838)

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### 1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

### 2) What's the main question being asked or hypothesis being tested in this study?

Participants who have viewed the whole Avatar: The Last Airbender series will rate the character Iroh as wiser in scenes from the first book of the series than will participants who are unfamiliar with Avatar: The Last Airbender. Ratings for the character Katara will be collected also for comparison. We predict more of a difference between knowledgeable and naive participants in their ratings for Iroh than in their ratings for Katara.

### 3) Describe the key dependent variable(s) specifying how they will be measured.

Three Iroh scenes and three Katara scenes will be rated for all participants, with several 7-point semantic differentials, the key one being wise -- unwise. This yields six raw DVs (three wisdom ratings for Iroh and three for Katara). We will also create a summary variable, summing the three Iroh wisdom ratings and subtracting the three Katara ratings, for an overall Iroh-minus-Katara (IMK) score for each participant.

### 4) How many and which conditions will participants be assigned to?

All participants will be assigned to the same condition, viewing and rating all scenes -- the three Iroh scenes (in random order) and the three Katara scenes (in random order). The order in which the characters are presented (i.e., whether the Iroh or Katara scenes are presented first) is also randomized. However, participants will be classified "naive" if their self-rating of knowledge is less than 4 (on a 0-6 scale) and/or they get fewer than four correct answers on six knowledge questions. Therefore, the main comparisons between participants will be made based on whether participants are naive or experienced.

### 5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We will do two main analyses. For our first analysis, we will perform an independent samples t-test (two-tailed, alpha .05) on the IMK score, hypothesizing that knowledgeable participants will have higher IMK scores than naive participants. In order to supplement this analysis, we will perform a simple pairwise comparison to verify that the effect is characterized by experienced participants rating Iroh as wiser than naive participants, rather than experienced participants rating Katara as less wise than naive participants.

The other main analysis will be a generalized linear mixed model that predicts each individual wisdom response, using participant as a random intercept, scene as a random intercept (i.e., the three scenes for each character section), character as a main predictor (Iroh vs. Katara), knowledge as a main predictor (naive vs. experienced), and character X knowledge as an interaction. Our hypothesis is that the interaction will be significantly positively associated (alpha .05) with the wisdom rating. We also expect that knowledge will be positively associated and Iroh will be negatively associated. We expect this interaction to verify the pattern observed in the previous analysis; specifically, we expect that the interaction will be characterized by experienced participants rating Iroh as wiser than naive participants. Furthermore, in the instance that our model exhibits convergence failure or singular convergence, we will follow the procedure suggested by Bates et al. (2020) and implemented in a recent study (Schwitzgebel, 2021).

### 6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Participants who fail one or both free-response comprehension checks will be excluded.

### 7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We aim to collect 200 responses. However, we are concerned that we might not recruit enough knowledgeable participants, so after 100 responses we will stop and check that at least 20% of respondents are knowledgeable. If the percentage is lower, we will change the recruitment procedure to recruit more knowledgeable participants.

### 8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

Exploratory analysis may also look for scene effects, knowledge X scene interactions, and effects on the other rated traits (e.g., lazy - hard-working). We might also look for correlations between amount of knowledge about Avatar: The Last Airbender and the main DVs and/or patterns among participants with some knowledge but not enough to qualify as knowledgeable.

We will also collect qualitative comments on the Iroh's and Katara's wisdom for qualitative analysis.