Dataset Requirements: We are looking for datasets wherein participants see multiple cognitive or social stimuli (loosely defined), and the data is preserved with each original item-answer. For example, you may have participants rate 25 items on their pleasantness. If the data contains each rated item for each participant (i.e., not averaged across items), this data would be an appropriate dataset for our project. Note that it does not have to be your data, but you may know an appropriate dataset that is open source that we can use.

Project/Data Title:

Project/Data Description: The diversity of human faces and the contexts in which they appear gives rise to an expansive stimulus space over which people infer psychological traits (e.g., trustworthiness or alertness) and other attributes (e.g., age or adiposity). Machine learning methods, in particular deep neural networks, provide expressive feature representations of face stimuli, but the correspondence between these representations and various human attribute inferences is difficult to determine because the former are high-dimensional vectors produced via black box optimization algorithms. In this paper, we combined deep generative image models with over 1 million judgments to model inferences of more than 30 attributes over a comprehensive latent face space. The predictive accuracy of the model approached human interrater reliability, which simulations suggest would not have been possible with fewer faces, fewer judgments, or lower-dimensional feature representations. The model can be used to predict and manipulate inferences with respect to arbitrary face photographs or to generate synthetic photorealistic face stimuli that evoke impressions tuned along the modeled attributes.

In sum, the dataset contains 1.14 million ratings across 1000 items and 34 traits by 5,000 participants.

Methods Description: For the attribute model studies, we used a between-subjects design where participants evaluated faces with respect to each attribute. Participants first consented. Then they completed a preinstruction agreement to answer open-ended questions at the end of the study. In the instructions, participants were given 25 examples of face images in order to provide a sense of the diversity they would encounter during the experiment. Participants were instructed to rate a series of faces on a continuous slider scale where extremes were bipolar descriptors such as “trustworthy” to “not trustworthy.” We did not supply definitions of each attribute to participants and instead relied on participants’ intuitive notions for each.

Each participant then completed 120 trials with the single attribute to which they were assigned. One hundred of these trials displayed images randomly selected (without replacement) from the full set; the remaining 20 trials were repeats of earlier trials, selected randomly from the 100 unique trials, which we used to assess intrarater reliability. Each stimulus in the full set was judged by at least 30 unique participants.

At the end of the experiment, participants were given a survey that queried what participants believed we were assessing and asked for a self-assessment of their performance and feedback on any potential points of confusion, as well as demographic information such as age, race, and gender. Participants were given 30 min to complete the entire experiment, but most completed it in under 20 min. Each participant was paid $1.50.

Data Location: https://github.com/jcpeterson/omi

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Dataset Citation: Peterson, J. C., Uddenberg, S., Griffiths, T., Todorov, A., & Suchow, J. W. (2022). Deep models of superficial face judgments. *Proceedings of the National Academy of Sciences (PNAS).*

Keywords: first impressions, social perception, face perception

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Geographic Description - City/State/Country of Participants: For the attribute model studies, we used Amazon Mechanical Turk to recruit a total of 4,157 participants across 10,974 sessions, of which 10,633 (≈ 97%) met our criteria for inclusion. Participants identified their gender as female (2,065) or male (2,053), preferred not to say (21), or did not have their gender listed as an option (18). The mean age was ∼39 y old. Participants identified their race/ethnicity as either White (2,935), Black/African American (458), Latinx/a/o or Hispanic (158), East Asian (174), Southeast Asian (71), South Asian (70), Native American/American Indian (31), Middle Eastern (12), Native Hawaiian or Other Pacific Islander (3), or some combination of two or more races/ethnicities (215). The remaining participants either preferred not to say (22) or did not have their race/ethnicity listed as an option (8). Participants were recruited from the United States.

Column Metadata: Fill in the chart below for each column of data in the dataset. Please note you can filter out columns that are not useful for this project.

| Variable Name | Variable Description | Type (numeric, character, logical, etc.) |
| --- | --- | --- |
| participant | The ID of the participant | Numeric (integer) |
| stimulus | The ID of the stimulus | Numeric (integer) |
| trait | The ID of the trait | Numeric (integer) |
| response | The rating provided | Numeric (integer) |

What columns should we use to simulate the data?

* Item labels are found: stimulus
* Variable(s) of interest are found: response

Goals: we will use this data to provide examples of our simulation process on how to determine sample size for a project based on item rather than participant. You can read about this idea here: <https://github.com/SemanticPriming/SPAML/blob/master/02_Power/power_aipe.pdf> We will use the example provided in this link as the main portion of the paper and then add your data as a vignette example to supplement the paper. You will be considered an author for completing this template worksheet (no coding skills necessary, we will do that part), and reviewing/commenting on the draft of the paper. Please email [007spaml@gmail.com](mailto:007spaml@gmail.com) if you have questions.