

Stimulus Selection Procedure

In this study, we required a set of six food images that would be visually interpretable, and sufficiently distinct from one another. To avoid ambiguity in recognition, we focused on foods commonly encountered in the local cultural context and excluded items that are strongly associated with each other (e.g., hamburgers and fries). We also aimed to ensure that the final images would not exhibit high visual or conceptual similarity, thereby maintaining clear discriminability across stimuli.

To achieve this, we used ChatGPT-4o to assist in constructing and validating the stimulus pool. First, the model generated an initial list of 30 iconic Swiss/European dishes across various categories, including mains, soups, desserts, and regional specialties. Next, ChatGPT-4o was instructed to simulate 100 virtual participants (ages 20–30; 50 Swiss and 50 from neighboring countries) and to produce pairwise similarity ratings for all dish combinations on a 0–10 scale. These simulated ratings were based on everyday culinary experience, co-occurrence (e.g., typically served together), meal type, and cultural associations.

We selected a subset of dishes that exhibited the most stable and coherent similarity structure, defined by low across-rating variance and balanced coverage of the similarity space. The final selected items were subsequently redrawn as standardized cartoon-style stimuli, matched in visual complexity, brightness, and color, to ensure consistency for use in cognitive and experimental tasks (see figure below for the similarity matrix).

