

Background and Scoring Instructions for the Data Set: “Subjective Effect Reports of Food”

Erica Schulte – University of Michigan - eorenste@umich.edu

Methodology: A cross-sectional design was used in this study. There were 507 participants (n = 501 used in analyses) recruited through Amazon MTurk to answer a survey about eating behavior. The survey was conducted using Qualtrics. In the online survey, participants were shown pictures of various food items, one at a time and in a randomized order, and asked to answer several questions about each food. Participants were instructed to respond to the questions while thinking about how they typically feel when they consume the pictured food. Cluster analytic techniques in SPSS Version 24.0 were utilized to explore how food items group together based on facets of subjective experience.

Description: The data set supports a study investigating which foods may be most implicated in addictive-like eating by examining how nutritionally diverse foods relate to loss of control consumption and various subjective effect reports. Participants (n = 501) self-reported how likely they were to experience a loss of control over their consumption of 30 nutritionally diverse foods and rated each food on five subjective effect report questions that assess the abuse liability of substances (liking, pleasure, craving, averseness, intensity). Hierarchical cluster analytic techniques were used to examine how foods grouped together based on each question. Highly processed foods, with added fats and/or refined carbohydrates, clustered together and were associated with greater loss of control, liking, pleasure, and craving. The clusters yielded from the subjective effect reports assessing liking, pleasure, and craving were most similar to clusters formed based on loss of control over consumption, whereas the clusters yielded from averseness and intensity did not meaningfully differentiate food items. The associated study applies methodology used to assess the abuse liability of substances to understand whether foods may vary in their potential to be associated with addictive-like consumption. Highly processed foods (e.g., pizza, chocolate) appear to be most related to an indicator of addictive-like eating (loss of control) and several subjective effect reports (liking, pleasure, craving). Thus, these foods may be particularly reinforcing and capable of triggering an addictive-like response in some individuals. Future research is warranted to understand whether highly processed foods are related to these indicators of abuse liability at a similar magnitude as addictive substances.

More information about the data and the study can be found in the following publication:

- Schulte EM, Smeal JK, Gearhardt AN (2017) Foods are differentially associated with subjective effect report questions of abuse liability. PLoS ONE12(8): e0184220. <https://doi.org/10.1371/journal.pone.0184220>

Scoring:

For each food item, the following questions were asked:

- How much do you typically crave this food?
 - 0=No craving
 - 100=Extreme craving
- How much do you like the taste of this food?
 - -100=Dislike extremely
 - 100=Like extremely
- How much pleasure do you experience while consuming this food?
 - 0=No pleasure
 - 100=Extreme pleasure
- How aversive do you find the taste of this food?
 - 0=Not at all aversive
 - 100=Extremely aversive
- How guilty do you feel while consuming this food?
 - 0=Not guilty at all
 - 100=Extremely guilty
- How intense do you find the taste of this food?
 - 0=Not at all intense
 - 100=Extremely intense
- How out of control do you feel when consuming this food?
 - 0=Not out of control at all
 - 100=Extremely out of control
- How likely are you to consume this food again in the next week?
 - -100=Definitely will not consume again in the next week
 - 100=Definitely will consume again in the next week
- How likely are you to intentionally purchase this food in the future?
 - -100=Definitely will not purchase this food
 - 100=Definitely will purchase this food

Then, the Yale Food Addiction Scale 2.0 (YFAS) was administered (variables YFAS1 thru YFAS 35). More information about the YFAS can be found in the following two articles:

1. Gearhardt AN, Corbin WR, Brownell KD. Preliminary validation of the Yale Food Addiction Scale. *Appetite*. 2009;52(2):430–6. pmid:19121351.
2. Gearhardt AN, Corbin WR, Brownell KD. Development of the Yale Food Addiction Scale Version 2.0. *Psychology of addictive behaviors: journal of the Society of Psychologists in Addictive Behaviors*. 2016;30(1):113–21. pmid:26866783.

Demographics:

- Height
- Weight (in pounds)
- Age

- Gender
 - Male (1)
 - Female (2)
 - Other (3)
- Race
 - American-Indian (1)
 - African-American (2)
 - Arab (3)
 - Asian/Pacific Islander (4)
 - Caucasian/White (5)
 - Hispanic (6)
 - Other (7)