**The effects of descriptive social norm messages on anticipated and experienced liking of healthy foods: Study 2**

*Aims*

This study examined the effects of different social norm messages on food liking, by examining rated liking before norm exposure, after norm exposure, and after consumption of the actual foods. We aimed to investigate any changes in liking against actual intake of the foods which were rated. We hypothesised that social norms would enhance expected and actual ratings of fruit and vegetable liking, and that increased liking would be predictive of food intake.

*Design*

The study used a between-subjects design with three conditions: Neutral Control message, Descriptive Norm message and Liking Norm message. Female participants were randomly assigned to the message conditions, and were exposed to the messages through a study that was ostensibly separate, and aimed at gaining feedback on educational posters.

*Messages*

The messages were:

* Control message: “Did you know that The University of Birmingham is over 100 years old? According to a recent survey, most students prefer to study at a University with an established record”.
* Descriptive norm message: “A lot of people aren’t aware that the typical student eats 5 servings of fruits and vegetables each day. Students eat more fruit and vegetables than you’d expect”.
* Liking norm message: “A lot of people aren’t aware that the typical student likes eating fruits and vegetables each day. Students like fruit and vegetables more than you’d expect\*”.

*Measures*

The following measures were taken via questionnaire:

* Demographics, including age, gender, nationality, whether they smoke, drink alcohol and if they have any health conditions – variables 12 to 23
* An eating questionnaire, which consisted of two open-ended questions asking participants what they had eaten and drank that day and when to check that the participant had not eaten for 2 h prior to attending the laboratory [EATEN\_IN\_LAST\_TWO\_HOURS]
* Visual Analogue Scales (VAS – to assess mood and appetite)
  + VAS items included: alert, drowsy, light-headed, anxious, happy, nauseous, sad, withdrawn, faint, hungry, full, desire to eat, and thirst. Participants indicated how much they felt a particular state, by marking on a 100mm horizontal line, between the anchors “Not at all” and “Very.”
  + Variables 25 to 35 for the first administration of the VAS, and 64 to 74 for the second.
* Liking, Intentions and Sensory Ratings Questionnaire (LISRQ). These were similar to the VAS items, and asked participants to rate their liking for the food in question from along a 100mm horizontal line.
  + Variables 22-27 for liking ratings
  + Variables 48-51 for intention to eat every day ratings
  + Variables 52-55 for ratings of bitterness
  + Variables 56-59 for ratings of sweetness
  + Variables 60-63 for liking and intention ratings of fruit and vegetables in general
* To maintain the cover story for the first study, participants completed a poster evaluation questionnaire, rating the poster on key aspects (trustworthiness, believability, relatability, meaning, clarity, comprehension, and professional appearance) using a five-point Likert scale with the response scale ranging from strongly disagree to strongly agree – variables 36-42. Participants were also asked to recall the poster message (variable CONTENT\_POSTER\_RECALL)
* The Three Factor Eating Questionnaire (TFEQ) to assess whether there were differences in eating styles between conditions. (variables TFEQ\_CR, TFEQ\_D, TFEQ\_H)
* A usual food/drink Intake Questionnaire (UFDIQ) to gauge typical intake of healthy and junk food items (variables 79-86)
* Student Affiliation (SA) questions as a measure of strength of affiliation to the student referent group) [STUDENTAFFILIATION\_ID and STUDENTAFFILIATION\_CONNECTION]
* Student Food Attitudes Form (SFAF) to examine perceptions and beliefs of other student eating behaviours (variables 89-100)
* Participants completed questions asking whether they remembered the poster message they received [CONTENT\_POSTER\_RECALL\_2], and if they thought that anything from the “first study” affected their behavior in the “second study” (in order to check whether they were aware that the studies were linked) [AFFECT\_BEHAV] or if they realised they studies were linked [EXPLICIT\_AWARENESS\_QUESTION].

*Buffet items*

A buffet consisting of four snack food items was used. Two fruit and vegetable items were used as “healthy food” snacks: cucumber and green grapes. We also used two high calorie ‘junk food” snacks; ready-salted crisps and chocolate-chip cookies. All participants were exposed to the foods in a set order: Cucumber (200g) > Grapes (300g) > Tortillas (80g) > Cookies (150g).

*Procedure*

On arrival, participants completed the demographic questionnaires, the eating questionnaire and the first instance of the VAS. They were then approached to take part in what is ostensibly a separate poster study. As part of this, participants were asked to provide feedback on a poster that they were told was being developed as an educational material, and then were asked to recall the message.

Participants then resumed the main study. They were presented with the four bowls of food and were told to complete the liking ratings for each, and to feel free to eat as much as they liked. The remaining food was covertly weighed one they had finished, and participants then completed the second VAS and the remaining questionnaires, and were measured and weighed.