Eating Like Everyone Else: Perceived eating norms and energy intake

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[Image of baboons sitting on a rock]

[Image of cartoon characters wearing suits]

The Power of Social Influence

The Mullet: Making People Ugly since the Dawn of Time.

CROCS: making humans look like idiots since 2002
Social Eating in Animals and Humans
Observing Social Eating in Humans

Spontaneous meal patterns of humans: influence of the presence of other people

John M de Castro and Elizabeth S de Castro

ABSTRACT Social influences on eating were investigated by paying 63 adult humans to maintain 7-d diaries of everything they ingested, time, subjective hunger, and number of people present. Meals eaten with others contained more carbohydrate, fat, protein, and total calories; had smaller deprivation ratios; and had higher satefying ratios than meals eaten alone. The number of people present was positively related to meal size (when meals eaten alone were excluded). The number of people present was also a better predictor of meal size more than doubled an increase in meal size. Meal size was positively related to meals eaten alone but not for meals eaten with others. Predictors increase amounts eaten and disrupt postingestive activity. 237-47.

Psychological Reports, 1994, 75, 603-609. © Psychological Reports 1994

MALE AND FEMALE CONFORMITY IN EATING BEHAVIOR

MICHAEL GUARINO, PAMELA FRIDRICH, AND SARAH SITTON
St. Edward's University

Summary.—An observational methodology was used to evaluate the differences between men's and women's conformity to a single source of influence. A total of 226 adults (115 men and 111 women) were observed in three cafeteria settings. Diners eating in pairs in which the lead diner selected a dessert were identified based on their sex and their position in dyad. The sex of the lead person (the model), the sex of following person (the subject), and whether the following person conformed to the lead by selecting a dessert were recorded. Analysis indicated a significant difference between men's and women's willingness to conform to a model. Women conformed more often than men when the models were male or female. Moreover, compared with men, they showed an even stronger tendency to conform to the behavior of a same-gender model.
Eating with others in the laboratory: effects on EI

$r = 0.5, p<0.01$

Robinson, Tobias, Shaw, Freeman & Higgs, 2011, Appetite
What is the mechanism?

Is it self-presentation and social approval?
Normative soc. influence

Is it social proof?
Informational soc. influence
Socially influenced when alone

Remote confederates: Eating alone, deceived, learn about norms

All groups differ $p < 0.05$

Robinson, Benwell & Higgs, 2013, Appetite
Meta-analyzing

Figure 3. Forest plot for high intake norm studies. Total refers to sample size. SD=standard deviation. IV=independent variable.

Figure 4. Forest plot for low intake norm intake studies. Total refers to sample size. SD=standard deviation. IV=independent variable.

Robinson, et al. 2014. JAND
Making Use of Eating Norms

Eating a lot of vegetables is good for your health

A lot of people aren’t aware that heart health and cancer risk can be improved by eating over 3 servings of vegetables each day*

*2011 study

Most students eat more vegetables than you’d expect

A lot of people aren’t aware that the typical student eats over 3 servings of vegetables each day*

*2011 study
Proportion of meal derived from vegetables

Health info condition
20% meal veg derived

Social norms condition
38% meal veg derived

**Significant difference between conditions at p<0.05

Robinson et al., 2014, Health Psychology
Study 2 – Low Consumers

*Kcals

Social norm = 58.8kcals

Health = 135.4kcals

Robinson et al., 2014, Health Psychology
Messages in a canteen setting

Healthy and unhealthy social norms and food selection. Findings from a field-experiment

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ARTICLE INFO
Article history:
Received 9 March 2012
Received in revised form 10 January 2013
Accepted 21 January 2013
Available online 10 February 2013

Keywords:
Social norm
Injunctive norm
Descriptive norm
Food choice
Field-experiment

ABSTRACT
The behavior of others in people’s social environment (i.e., descriptive norms), as well as their opinions regarding appropriate actions (i.e., injunctive norms) strongly influence people’s decisions and actions. The goal of this study was to extend prior laboratory research on the influence of social norms on food choices, by conducting a field-experiment in an on-campus food court. One of three different messages was posted on a given day: a healthy descriptive norm, healthy injunctive norm, or an unhealthy descriptive norm. Effects of these social norms messages on food choice were compared against each other and a no-message control condition. In total, 687 students reported their food choice through a questionnaire provided to them. Food choices were analyzed for participants who reported being exposed to one of the social norms signs and those in the control condition (N = 220). Findings showed that the healthy descriptive norm resulted in more healthy food choices, compared to an unhealthy descriptive norm, as well as the control condition. The difference between the injunctive healthy norm and the control condition was not significant, though those in the injunctive norm condition did make more healthy decisions, than those in the unhealthy descriptive norm condition. Implications with regard to theory and practice are discussed.

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Approaches focused on the individual?

Efficacy of Web-Based Personalized Normative Feedback:
A Two-Year Randomized Controlled Trial

Clayton Neighbors, Melissa A. Lewis, David C. Atkins, Megan M. Jensen, Theresa Walter, Nicole Fossos, Christine M. Lee, and Mary E. Larimer
University of Washington

Objective: Web-based brief alcohol interventions have the potential to reach a large number of individuals at low cost; however, few controlled evaluations have been conducted to date. The present study was designed to evaluate the efficacy of gender-specific versus gender-nonspecific personalized normative feedback (PNF) with single versus biannual administration in a 2-year randomized controlled trial targeting a large sample of heavy-drinking college students. Method: Participants included 818 freshmen (57.6% women; 42% non-Caucasian) who reported 1 or more heavy-drinking episodes in the previous month at baseline. Participants were randomly assigned in a 2 (gender-specific vs. gender-nonspecific PNF) × 2 (single vs. biannual administration of PNF) + 1 (attention control) design. Assessments occurred every 6 months for a 2-year period. Results: Results from hierarchical generalized linear models provided modest effects on weekly drinking and alcohol-related problems but not on heavy episodic drinking. Relative to control, gender-specific biannual PNF was associated with reductions over time in weekly drinking (d = -0.16, 95% CI [-0.22, -0.10]), and this effect was partially mediated by changes in perceived norms. For women, but not men, gender-specific biannual PNF was associated with reductions over time in alcohol-related problems relative to control (d = -0.29, 95% CI [-0.43, -0.15]). Few other effects were evident. Conclusions: The present research provides modest support for the use of biannually administered web-based gender-specific PNF as an alternative to more costly indicated prevention strategies.

Keywords: alcohol, social norms, personalized normative feedback, prevention, college students
Other possible uses we are testing

- Menu labelling and lower calorie options
- Healthy eating promotion in kids
Conclusions

• Perceived eating norms guide food intake and food choice

• Exploiting norms to change dietary behaviour may have promise….

• They all have their limitations and we will need to develop a strong evidence base……
Thanks

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UK Congress on Obesity 2014

University of Birmingham, Edgbaston Campus
Tuesday 16th September and Wednesday 17th September 2014