Research review

Social norms and their influence on eating behaviours ☆

Suzanne Higgs *

School of Psychology, University of Birmingham, Birmingham B15 2TT, UK

A R T I C L E   I N F O

A B S T R A C T

Social norms are implicit codes of conduct that provide a guide to appropriate action. There is ample evidence that social norms about eating have a powerful effect on both food choice and amounts consumed. This review explores the reasons why people follow social eating norms and the factors that moderate norm following. It is proposed that eating norms are followed because they provide information about safe foods and facilitate food sharing. Norms are a powerful influence on behaviour because following (or not following) norms is associated with social judgements. Norm following is more likely when there is uncertainty about what constitutes correct behaviour and when there is greater shared identity with the norm referent group. Social norms may affect food choice and intake by altering self-perceptions and/or by altering the sensory/hedonic evaluation of foods. The same neural systems that mediate the rewarding effects of food itself are likely to reinforce the following of eating norms.

© 2014 Elsevier Ltd. All rights reserved.

Contents

Introduction

Eating often occurs in a social context and the food choices of others and the amounts that those around us eat have a powerful effect on our own consumption decisions. We model the eating choices of our dining partners and consume amounts similar to what they eat (Herman, Roth, & Polivy, 2003). Sometimes the presence of other diners may augment consumption compared with eating alone (De Castro & Brewer, 1992) and other times eating may be inhibited, even in the face of deprivation-induced hunger (Goldman, Herman, & Polivy, 1991).

One mechanism that may underlie the effects of social context on eating is the operation of social norms. Social norms are implicit codes of conduct that provide a guide to appropriate action. There is evidence that we use information about the eating behaviour

of others as a guide as to what is the appropriate behaviour in a given context (Herman et al., 2003). Dietary behaviours have also been reported to be related to perceptions of normative behaviour within peer groups (Ball, Jeffrey, Abbott, McNaughton, & Crawford, 2010; Lally, Bartle, & Wardle, 2011; Louis, Davies, Smith, & Terry, 2012) and food intake can be predicted by the eating behaviour of socially connected peers (de la Haye, Robins, Mohr, & Wilson, 2010; Feunekes, de Graaf, Meyboom, & van Staveren, 1998; Pachucki, Jacques, & Christakis, 2011).

Studies on the effects on food intake/choice of providing normative information about the eating habits of others have been reviewed elsewhere recently (Robinson, Benwell, & Higgs, 2013a; Robinson, Blissett, & Higgs, 2013b; Robinson, Fleming, & Higgs, 2014a; Robinson, Thomas, Aveyard, & Higgs, 2014b). Studies on social facilitation of eating, modelling and impression management are reviewed elsewhere in this special issue. The aim of this paper is to add to this literature by exploring why people follow eating norms and how these norms influence eating. Consideration will also be given to the factors that determine when people follow norms and when other factors override the influence of norms.

What are social eating norms and where do they come from?

Social eating norms are perceived standards for what constitutes appropriate consumption, whether that be amounts of foods or specific food choices, for members of a social group. The social group might be defined at the level of nationality, peer group, family or friendship grouping. Social norms may be communicated directly via cultural practices and rules, actual behaviour in a given situation, or indirectly via environmental cues such as portion size norms. For example, a social norm might be avoidance of eating insects, which is communicated by the group cuisine rules and reinforced by observation of disgust responses to (the prospect of) eating insects (Looy, Dunkel, & Wood, 2013). Descriptive norms refer to the perceptions of the prevalence or extent of a behaviour (what other people do) and injunctive norms refer to perceptions about what behaviour is expected (what other people endorse) (Cialdini, Reno, & Kallgren, 1990).

Why do people follow social eating norms?

Two possible reasons why people follow eating norms are that 1) following a norm enhances affiliation with a social group and being liked; and 2) following a norm results in eating that is correct (Deutsch & Gerard, 1955). Many studies have been conducted to investigate the role of these motives in norm following in the context of eating.

It has been reported that traits linked to the need for affiliation, such as self-esteem and empathy, are associated with norm following (Robinson, Tobias, Shaw, Freeman, & Higgs, 2011). Robinson and colleagues found that participants were more likely to follow the eating norm set by their eating partner when they scored high on a measure of empathy and low on a measure of self-esteem. They concluded that social acceptance concerns play a role in modelling of a food intake norm. Hermans and colleagues found that the quality of a social interaction affects the degree of modelling observed (Hermans, Engels, Larsen, & Herman, 2009). They instructed a confederate to act either in a friendly or unsociable manner and reported that less modelling occurred when the confederate acted in a friendly manner than when the confederate acted in an unsociable manner. One interpretation of the results of this study is that under conditions where there is little need to ingratiate oneself, because a social partner is already accepting, it is less likely that a social norm inferred from his or her behaviour will be followed. This hypothesis was tested explicitly in a study that employed an experimental manipulation to alter feelings of social

acceptance before a social eating opportunity. Priming feelings of social acceptance reduced the extent to which the participant modelled the food intake of a confederate (Robinson et al., 2011). The results of these studies are consistent with the idea that norms are followed as a means of affiliating with others and gaining acceptance.

Several studies have examined how people adjust their eating behaviour to manage their public image and create a certain impression on others. In reviewing this literature, Vartanian, Herman and Polivy concluded that we make use of stereotypes about consumption patterns to convey an image of ourselves in accord with that stereotype (Vartanian, Herman, & Polivy, 2007). Eating a small portion conveys a feminine and otherwise positive image, which may be used to create a favourable impression on a fellow diner who values those characteristics (Pliner & Chaiken, 1990). These data are in line with evidence from the broader social psychology literature that adopting normative behaviour achieves a goal of affiliating with others that is driven by our strong desire to be liked (Baumeister & Leary, 1995).

Other studies have examined whether people follow norms conveyed by messages about how other people have behaved in a specific situation, rather than norms set by another present person's eating (see Robinson et al., 2014a, 2014b for a review). These types of norms are usually referred to as informational norms (Deutsch & Gerard, 1955). In the remote confederate design, participants are exposed to fictitious accounts of the amount of food consumed by previous participants in that study (Feeney, Polivy, Pliner, & Sullivan, 2011; Pliner & Mann, 2004; Roth, Herman, Polivy, & Pliner, 2001). If remote confederates eat a lot, this signals a high intake norm, whereas if they eat only a little then this signals a low intake norm. A high norm increases food intake relative to a no norm control condition whereas a low intake norm decreases intake relative to a no norm control condition (Feeney et al., 2011; Pliner & Mann, 2004; Robinson et al., 2011; Roth et al., 2001). Amounts consumed by previous participants in a study can also be communicated via cues such as empty food wrappers. There is evidence that participant choices are affected by such cues. People are more likely to choose a "healthy" versus "unhealthy" food item if they see evidence that previous participants have chosen "healthily" (Prinsen, de Ridder, & de Vet, 2013). Furthermore, text-based descriptive norm messages conveying information about the eating behaviour of others affect subsequent food choices (Robinson et al., 2014a, Stok, de Ridder, de Vet, & de Wit, 2012; Stok, Ridder, Vet, & Wit, 2014a; Stok, Verkooijen, Ridder, Wit, & Vet, 2014b). In these instances, following the norm does not serve to promote affiliation or a sense of belonging because there is no other person present. Hence, it might be concluded that the motive to behave correctly explains why people follow eating norms. Taking the example of studies using a remote confederate, the intake of the fictitious participants indicates the "right" way to behave in terms of how much to eat or what foods to choose, and so that norm is adopted (Cialdini & Trost, 1998; Deutsch & Gerard, 1955).

Clearly, there is evidence that on occasion people might follow an eating norm to satisfy a desire to be liked but there is also evidence that in the absence of direct social interaction, people still follow eating norms, perhaps because they desire to behave correctly. Traditionally these motives have been conceptualised as being independent (Cialdini & Goldstein, 2004). However, a more detailed consideration of the evidence suggests that affiliation and correctness concerns are not so easy to disentangle as it might at first seem. Although the use of the remote confederate design may minimise the extent to which people alter their behaviour to create a good impression, there remains the possibility that the participants may follow the norm to impress the experimenter, assuming that they are aware that their food intake/choices are being monitored by the experimenter. In addition, adhering to the norm may