

Research Report

Effects of priming thoughts about control on anxiety and food intake as moderated by dietary restraint

Ken J. Rotenberg^{a,*}, Claire Lancaster^a, Julie Marsden^a,
Sarah Pryce^a, Juliet Williams^a, Paul Lattimore^b

^aDepartment of Psychology, Keele University, Keele, Staffordshire ST5 5BG, UK

^bLiverpool John Moores University, Liverpool, Merseyside, UK

Received 5 August 2003; revised 6 November 2003; accepted 8 September 2004

Abstract

The study was designed to examine: (a) if activating thoughts about control affects anxiety and food intake and (b) if those effects are moderated by dietary restraint. Eighty female undergraduates were administered the Dietary Restraint questionnaire and were primed for cognitions of control or of lack of control. The participants' perceptions of control over food consumption, their state anxiety, and their food intake as part of an alleged taste-test, were assessed. As evidence for the effectiveness of priming, participants reported less control over food consumption after being primed for lack of control than for control cognitions. As expected, Restraint score was negatively correlated with perceived control over food consumption. Consistent with hypothesis, participants high in dietary restraint experienced greater anxiety after being primed for control than after priming for lack of control, whereas participants low in dietary restraint displayed the opposite pattern. These findings were consistent with the cognitive dissonance principle that individuals experience greater anxiety when cognitions are inconsistent with personal beliefs than when they are consistent. As expected, priming thoughts of lack of control resulted in greater food intake than did priming thoughts of control, supporting the hypothesis of a nonconscious, automatic link between cognitions and food intake. © 2004 Elsevier Ltd. All rights reserved.

Keywords: Priming; Control; Restraint; Beliefs; Anxiety

Introduction

Various theories on eating problems advance the principle that individuals' perceptions of control over food consumption serve as implicit cognitive schemas that affect food intake (Baumeister & Heatherton, 1996; Grillo & Shiffman, 1994; Herman & Polivy, 1975; Westenhofer, Broeckmann, & Volker, 1994). In this paper, food intake is used to refer to the *quantity* of food consumed. Studies only have yielded an *association* between perceptions of control over food consumption and food intake and, consequently, provide only limited evidence for the causal relation between them. Furthermore, previous research has not revealed whether control cognitions serve as a nonconscious automatic cause of food intake. The primary purpose of

the present study was to utilize priming of control cognitions in order to examine that causal relation. In addition, the study was designed to examine whether dietary restraint was negatively associated with perceived control over food consumption and, consequently, would moderate the effects of the priming control cognitions as evidenced in patterns of anxiety.

Cognitive priming

Cognitive priming is the process by which the accessibility of a particular schema, concept or related stored information is increased by recent or repeated exposure to a similar schema, concept or word (see Baldwin, Carrell, & Lopez, 1990; Higgins, Rholes, & Jones, 1977). Studies have demonstrated that cognitive priming affects individuals' perceptions of others' characteristics, (Higgins et al., 1977), depression (Gotlib & Cane, 1987; Gotlib & McCann, 1984;

* Corresponding author.

E-mail address: k.j.rotenberg@keele.ac.uk (K.J. Rotenberg).

Segal, Gemar, Truchon, Guirguis, & Horowitz, 1995) and social behaviour (Bargh & Chartrand, 1999; Bargh, Chen, & Burrows, 1996; Higgins, 1996). Research on cognitive priming has served to support the conclusion that cognitions serve as nonconscious automatic causes of behaviour (see Bargh, & Chartrand, 1999). Nonconscious automatic cause refers to the tendency for cognitions to directly elicit behavior without the individual being aware of the relation.

Priming has been employed in research on eating problems. Meijboom, Jansen, Kampman, and Schouten (1999) found that women high in dietary restraint showed increased concern with body shape and weight as a result of the subliminal priming of low self-esteem. In a similar vein, Meyer and Waller (1999, 2000) found that women increased their food intake as a result of the subliminal priming of abandonment cues. Also, Giner-Sorolla (2001, Study 3) found that food intake in dieters was affected by unobrusively primed emotion words, varying in valence and self-consciousness versus hedonic value.

Cognitions of control over food consumption and dietary restraint

The principle that individuals' cognitions about control over food consumption affect food intake is pivotal to the theory of Herman and Polivy (1975, 1980, 1984) and research on dietary restraint. Dietary restraint refers to the extent to which individuals seek to achieve or maintain their desired weight by dieting and exercise. According to the theory, when restrained eaters (those high on dietary restraint) violate their cognitive attempts to achieve or maintain a desired weight, such as by eating an apparently fattening food (a preload), they experience a loss of control and increase their food intake. Herman and Polivy (1975) referred to that phenomenon as the *what-the-hell effect*. According to Herman and Polivy's (1975) formulations, when restrained eaters experience an increase in lack of control cognitions, those cognitions *trigger* increased food intake presumably in a nonconscious automatic fashion. A similar principle is implicit in other theories and research on the role that self-control plays in dietary restraint (see Baumeister & Heatherton, 1996; Giner-Sorolla, 2001).

A number of lines of research have yielded support for Herman and Polivy's (1975) theory as outlined. For example, Rotenberg and Flood (2000) found that restrained eaters' increases in food intake after a preload were mediated by their beliefs that they had little control over indulgent food consumption. Consistent with the theory, Ogden and Greville (1993) found that restrained eaters experience increases in the desire to challenge the limitations set by a diet after a preload. In a complementary study, it has been found that the rigid beliefs about the control over food consumption (all or nothing) by restrained eaters contribute to the effects of a preload (Westenhoefer, Broeckmann, & Volker, 1994). Apparently contrary to the theory, Jansen, Merckelback, Oosterlaan, Tuiten, and Hout

(1988) failed to find that restrained eaters reported more disinhibited thoughts (e.g. I've blown my diet, I might as well continue to eat) than did unrestrained eaters following a preload. This pattern was found even though the preload was found to be effective in increasing food intake in restrained eaters. Jansen et al. (1988) concluded that disinhibitory cognitions may not be freely accessible to restrained eaters as a result of a preload. This latter finding is consistent, however, with the premise that the lack of control cognitions serve as nonconscious, automatic causes of food intake.

The preceding findings lend support for the hypothesis that control cognitions serve as causes of food intake. However, the findings are correlational in nature and thus provide very limited evidence for causality. Furthermore, the findings do not explicitly reveal whether control cognitions serve as a nonconscious automatic cause of food intake: a relation that should be found regardless of an individual's dietary restraint when the accessibility of control cognitions are directly affected. This hypothesized causal link was examined in the present study by the use of the priming methodology to increase the accessibility of control versus lack of control cognitions. It was expected that greater food intake would result from the priming of lack of control than control cognitions.

The present study also was guided by the expectation that dietary restraint would moderate the effects of priming control cognitions. As noted, researchers have found that individuals who were high in dietary restraint tend to believe that they have little control over food consumption whereas individuals who were low in dietary restraint believe that they have considerable control over food consumption (Rotenberg & Flood, 2000; Rotenberg, Lattimore, Halford, Costa & Fryer 2004; Rotenberg, Carte & Spiers, in press). Cognitive dissonance theory provides an insight into how those personal beliefs could affect the effectiveness of the priming of control cognitions. According to research on cognitive dissonance, individuals experience an unpleasant state (e.g., anxiety) when they attempt to adopt cognitions incongruent with their personal beliefs and behavior (Cooper & Fazio, 1984; Van-Overwalle & Jordens, 2002). It would be expected then that individuals who were high in dietary restraint would experience greater anxiety when they were primed for control cognitions than when they were primed for lack of control cognitions. The reason for this hypothesis is that the control cognitions are incongruent, whereas the lack of control cognitions are congruent, with those individuals' personal beliefs. Similarly, it would be expected then that individuals who were low in dietary restraint would experience greater anxiety when they were primed for lack of control cognitions than when they were primed for control cognitions. This hypothesis also was guided by the principle that lack of control cognitions are incongruent, whereas control cognitions are congruent, with those individuals' personal beliefs.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات