



Pergamon

Eating Behaviors 3 (2002) 261–273

---

---

**EATING  
BEHAVIORS**

---

---

# Selective processing of weight- and shape-related words in bulimia nervosa

## Use of a computerised Stroop test

Emma J. Davidson<sup>a</sup>, Peter Wright<sup>b,\*</sup>

<sup>a</sup>*Immunology Group, Paterson Institute for Cancer Research, Christie Hospital NHS Trust, Wilmslow Road, Manchester M20 4BX, UK*

<sup>b</sup>*Department of Psychology, The University of Edinburgh, 7 George Square, Edinburgh EH8 9JZ, UK*

Accepted 19 March 2002

---

### Abstract

A computerised Stroop colour-naming task was used to measure concerns about weight, shape, and eating in bulimia nervosa. Two versions of the computerised Stroop were compared, a voice-activated and a button-pressing-activated programme. Bulimia nervosa patients were significantly slower in colour naming shape- and weight-related words than their female age-matched controls. The button-pressing computerised Stroop was both more sensitive and more accurate at measuring colour-naming speeds than the voice-activated version. When the bulimia nervosa group were divided according to their Eating Attitudes Test (EAT) scores, those who showed extreme pathological attitudes to weight and shape were significantly slower in colour naming size words and in food disruption scores than those with a lesser degree of psychopathology. The computerised Stroop might be useful as a diagnostic tool and in the assessment of the effectiveness of therapy for the individual patient.

© 2002 Elsevier Science Ltd. All rights reserved.

*Keywords:* Bulimia nervosa; Selective processing; Computerised Stroop Test

---

\* Corresponding author. Tel.: +44-131-650-1000; fax: +44-131-650-3461.

*E-mail address:* Peter.Wright@ed.ac.uk (P. Wright).

## 1. Introduction

Dysfunctional attitudes to weight, shape, and eating play a central role in the psychopathology of anorexia and bulimia nervosa (Fairburn, Cooper, & Cooper, 1986; Garner & Bemis, 1982). Patients see weight as being extremely important, equate their personal value with the shape of their bodies, and devote much of their time and energy to controlling what they eat (Vitousek & Hollon, 1990). Measurement of these concerns has traditionally relied on self-report questionnaires such as the Eating Attitudes Test (EAT) and Body Shape Questionnaire (BSQ), which have been able to pinpoint those aspects of shape and eating that are of particular concern for an individual. More recently, methods from cognitive science have been employed to measure not so much the attitudes that an individual has about weight, shape, and eating, but the mechanisms that serve to perpetuate those attitudes. Eating-disordered patients are thought to show selective attention to disorder-salient information, such that they are more likely to perceive and to remember information concerning body size and eating (King, Polivy, & Herman, 1991; Schotte, McNally, & Turner, 1990; Vitousek & Hollon, 1990). This selective attention has been measured with a modified version of the Stroop colour-naming task (Stroop, 1935). Patients with anorexia and bulimia nervosa demonstrate a colour-naming interference of food- and shape-related words, which may be indicative of a 'selective processing' of information relevant to this domain (Ben-Tovim, Walker, Fok, & Yap, 1989; Channon, Hemsley, & de Silva, 1988; Fairburn, Cooper, Cooper, & McKenna, 1991; Jones Chesters, Monsell, & Cooper, 1998; Sackville, Schotte, Touyz, Griffiths, & Beumont, 1998). These results have led some authors to suggest that the Stroop test may be an objective, reliable, and specific measure of eating-disordered attitudes and thus used as a method of assessing the effectiveness of treatment or therapy (Ben-Tovim & Walker, 1991; Fairburn et al., 1991; Walker, Ben-Tovim, Jones, & Bachok, 1992).

However, it has also been shown that certain non-patient groups of individuals share in this colour-naming interference of words related to food and/or shape: those who are in a temporary state of food deprivation (Channon & Hayward, 1990), dieters and nondieters who have been given a high-calorie preload before testing (Mahamedi & Heatherton, 1993; Ogden & Greville, 1993), and restrained eaters (Green & Rogers, 1993; Huon & Brown, 1996; Long, Hinton, & Gillespie, 1994; Perpina, Hemsley, Treasure, & de Silva, 1993). If normal individuals under particular circumstances can show a selective processing of food and shape words as demonstrated by the Stroop test, its specificity in the assessment of eating-disordered psychopathology is threatened.

The content of experimental instructions is extremely important in determining the results that the modified Stroop test will produce. Mahamedi and Heatherton (1993) informed their subjects that 'the experiment was designed to investigate the effects of personality on perceptual vividness'; Perpina et al. (1993) asked subjects to 'help with a research project investigating perceptual abilities.' In providing a cover story, these studies attempt to disguise the experimental hypothesis and to eliminate demand characteristics. Most of the other studies to date do not discuss the way in which the experiment was framed for its subjects. However, it is clear that asking subjects to complete questionnaires relating to eating

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

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