

## Visual evaluation of food amount in patients affected by Anorexia Nervosa

Piergiuseppe Vinai <sup>a,\*</sup>, Silvia Cardetti <sup>a</sup>, Noemi Ferrato <sup>a</sup>, Paola Vallauri <sup>a</sup>,  
Gabriella Carpegna <sup>a</sup>, Donatella Masante <sup>a</sup>, Gianluigi Luxardi <sup>b</sup>, Patrizia Todisco <sup>c</sup>,  
Fausto Manara <sup>c</sup>, Giovanni Maria Ruggiero <sup>a</sup>, Sandra Sassaroli <sup>a</sup>

<sup>a</sup> “Studi Cognitivi Research Group”, Post-graduate Cognitive Psychotherapy School, Foro Bonaparte 57, 20121 Milano, Italy

<sup>b</sup> Eating Disorders Unit ASL 6 S Vito al Tagliamento Pordenone, Italy

<sup>c</sup> Pilot Regional Eating Disorder Center, Azienda Ospedaliera, Spedali Civili, Brescia, Italy

Received 24 November 2005; received in revised form 2 July 2006; accepted 6 November 2006

---

### Abstract

*Objective:* The study compares visual evaluation of an amount of food and an amount of nonedible objects in patients affected by Anorexia Nervosa and control subjects.

*Method:* 59 anorexic subjects were asked to evaluate an amount of candies and plastic bricks shown to them. Their answers were compared to both the real number of objects and the parallel evaluations given by 56 control subjects.

*Results:* There were no significant differences in stimuli evaluation between patients affected by AN and control subjects. Both groups reported a significantly lower number of both candies and bricks in comparison to their real number.

*Discussion:* In an experimental condition not related with food intake there is the same under-evaluation of the amount of presented food and nonedible objects among patients affected by AN and Control Subjects. The clinical finding of overestimation of food intake among patients affected by AN seems not to be due to a perceptive bias.

© 2006 Elsevier Ltd. All rights reserved.

*Keywords:* Anorexia Nervosa; Perception; Food amount evaluation; Worry; Drive for control

---

### 1. Introduction

In clinical experience patients affected by Anorexia Nervosa frequently claim to feel the uncomfortable impression not to be able to reliably evaluate the amount of served food, engaging the therapists in time consuming Socratic debates about their food intake. We tried to assess if subjects affected by AN are not really able to accurately describe the amount of food to which they are exposed and if there are differences in food dose evaluation among AN patients and control subjects. Moreover we compared the estimation of edible and nonedible stimuli of the same size and shape, to find out if the nature of the stimulus influences the estimation of its amount.

---

\* Corresponding author.

E-mail address: [piervinai@tin.it](mailto:piervinai@tin.it) (P. Vinai).

URL: <http://www.studicognitivi.net> (P. Vinai).

To our knowledge no research testing food dose evaluation in patients affected by AN has ever been done. There are few studies about their perceptive abilities, however all of them focusing on the patients' body shape and weight. Epstein et al. (2001), Skrzypek and Wehmeier (2001) report that AN patients haven't got any perceptive biases: their body size evaluation is based on cognitive factors. These factors probably influence also their food evaluation: Overduin, Jansen, and Louwerse (1995) found Stroop Interference for food related words in anorexic subjects; Urdapilleta, Mirabel-Sarron, Meunier, and Richard (2005) report that among AN patients top-down processes in judging food play a dominating role. When asked to categorize aliments, they cluster them based on consequences of ingestion, (in terms of health, digestion and weight gain) rather than on visual characteristics or palatability, as control subjects would do. In light of these results we carried out the study in an experimental situation without any relation to food intake. This was done to minimize the influence of emotional factors.

## 2. Subjects and methods

### 2.1. AN group

60 female subjects affected by bingeing purging AN were recruited at admission in three ED inpatient units in Italy. All participants received detailed information about the procedures and aims of the study, and all gave their written consent. Psychiatrists of the clinical teams of the ED units assessed age, height, weight, comorbidity, and possible past or current psychotherapeutic and/or psychopharmacological treatments. Subjects were informed that all collected data would be strictly confidential. Parental permission was requested for subjects under 18.

Inclusion criteria for the study were: DSM-IV diagnosis of AN ascertained using the SCID interview and a minimum age of 14. Exclusion criteria were: comorbidity of mental retard, cognitive disorders, psychosis, major depression and personality disorders. One subject was excluded from the study because she was affected by borderline personality disorder. Thus 59 subjects with a mean BMI of 16.74 (SD 1.75) – ranging from 13.16 to 19.85 – took part in the study. The group included 17 patients with a BMI ranging from 17.60 to 19.85. However they were included anyway as they had met the diagnostic criteria for AN for many years but were currently in remission. This also gave us the opportunity to evaluate the influence of weight regain on the results.

All patients had to have followed a medically controlled diet for at least 10 days prior. This measure was taken to avoid the influence of acute starvation on the results.

The mean age of the group at the time of the interview was 25.23 years (SD 8.64) ranging from 14 to 54 years. The age gap between patients is somewhat big because also patients with a long term illness were included, mainly to find out if the duration of illness influences the results.

### 2.2. Control group

We recruited 60 female subjects from several secondary and high schools and from an adult school for domiciliary assistants in the town of Cuneo (Italy), during a 3 month period from February to May 2004. The subjects were asked to report previous or current psychiatric disorders and/or treatments and to complete the Eating Disorder Inventory to screen for possible eating disorders.

Four subjects were excluded from the study: 3 subjects were overweight (BMI 31.8, 29.7 and 32.0 respectively) and 1 subject reported bulimic traits. Thus, the control sample was comprised of 56 participants.

The average age of the control group at the time of the interview was 27.91 years (SD 8.41) ranging from 12 to 54 years.

There were no significant age differences between the anorexic group and the normal controls ( $T$  test:  $t(113) = -1.68$ ;  $p > 0.05$ ).

The average BMI of the control subjects was 21.40 (SD 2.45) ranging from 17.26 to 24.85.

### 2.3. Instruments

The subjects were shown two stimuli:

A stimulus: 27 high caloric and tasty yellow candies

B stimulus: 27 plastic yellow LEGO<sup>®</sup> bricks of the same size and shape as the candies.

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