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The psychology of eating

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1 People engage in eating behavior as a matter of survival, normally every day. That is, one has
2 to make choices about what to eat, when and how much. In contrast to our ancestors,
3 however, whose primary task was to seek out any food that would provide energy and
4 nutrients, those choices have become more difficult nowadays. In western or westernized
5 societies in particular, food is abundant, cheap, and available in a great variety. Moreover,
6 eating is a fundamentally rewarding behavior, and is thus intrinsically linked to mood and
7 emotions (Vögele and Gibson, 2010).

8

9 Because of this, we felt that the creation of a new specialty section about determinants and
10 consequences of eating behavior and mechanisms of its modulation is warranted. The aim of
11 *Frontiers in Eating Behavior* is to build knowledge for the understanding of eating behavior
12 by bringing together academics with different expertise, e.g. researchers investigating basic
13 processes related to eating behavior, clinical researchers examining the psychological,
14 physiological and nutritional aspects of eating disorders and practitioners, such as clinical
15 psychologists, physicians, and other health care professionals. As yet, this new specialty
16 section is the first and only periodical in open access publishing with a breadth of scope on
17 eating behavior embracing various methodologies and study populations.

18

19 When humans are energy deficient, a complex interplay of physiological processes signals the
20 brain that food should be consumed, i.e. an individual feels hungry. When enough food has
21 been consumed, these processes signal that consumption should be terminated, i.e. an
22 individual feels satiated or sated (Benelam, 2009). Nevertheless, this homeostatic regulation
23 of eating is steadily challenged and overridden by the omnipresence of food and food-related
24 cues. That is, eating can be triggered even in the absence of hunger or extended beyond
25 satiation (Lowe and Butryn, 2007). Numerous factors are known that determine or guide
26 eating behavior in an automatic and implicit fashion (Cohen and Farley, 2008). For instance,
27 eating may be initiated or prolonged by the presence of others, i.e. is influenced by social
28 factors (Herman and Polivy, 2004). Food choices and consumption are also strongly
29 influenced by environmental factors, e.g., advertising, packaging, portion sizes, lighting, and
30 many more (Stroebele and De Castro, 2004; Cohen and Babey, 2012). As a consequence,
31 constant monitoring and self-regulation of eating is necessary in order to eat healthily, i.e., to
32 provide the body both qualitatively and quantitatively with the right nutrients. At the same
33 time, eating healthily also means to be able to enjoy the rewarding aspects of food without
34 falling prey to a loss of control over eating.

35

36 Many individuals are able to do this successfully, yet some exhibit over-regulation of eating
37 behavior resulting in underweight and malnutrition. Cases of anorexia nervosa have been
38 known for a long time (Bemporad, 1996). On the other side of the extreme, permanent
39 failures of self-regulation may result in overweight and obesity. As with anorexia, obesity is
40 an age-old health condition (Haslam, 2011), but its prevalence has dramatically increased in
41 the second half of the twentieth century (Stroebe, 2008). While prevalence rates in western
42 countries appear to stabilize, rates of severe obesity continue to grow (Bessesen, 2008;
43 Yanovski and Yanovski, 2011) and newly industrialized countries seem to catch up (Finucane
44 et al., 2011).

45

46 In most cases, obesity is the result of poor dietary habits - rather than compulsive eating
47 binges - which contribute to a modest average daily excess of energy intake over energy
48 expenditure (Rogers, 2011). Some individuals, however, show regular binge eating which is
49 defined as consuming large amounts of food over a discrete period of time with a sense of
50 lack of control over eating, and which is associated with marked distress (American
51 Psychiatric Association, 2013). Prevalence of binge eating disorder (BED) is increased in
52 obese individuals, but not all patients with BED are necessarily obese. Furthermore, there are
53 some individuals who engage in regular binge eating but use compensatory behaviors like
54 vomiting to prevent weight gain. Hence, patients with bulimia nervosa (BN) are mostly
55 normal-weight (Thompson, 2003).

56

57 Unlike anorexia and obesity, BED and BN have been first described in the twentieth century
58 but their research history yet encompasses several decades (Stunkard, 1959; Russell, 1979).
59 Both eating disorders and obesity involve medical complications and are marked by
60 psychological distress and co-morbid mental disorders (Thompson, 2003), of which mood and
61 anxiety disorders are the most prevalent (Vögele and Gibson, 2010). Therefore, it is of no
62 surprise that there are numerous scientific journals, which are devoted to publishing research
63 on the etiology and treatment of those disorders.

64

65 In addition to eating disorders and obesity, there are a vast number of eating behaviors that
66 deserve scientific scrutiny and discussion. For instance, there are some problematic eating
67 behaviors that are not included in the current diagnostic manuals, but are continuously
68 debated in terms of their clinical relevance (cf. Corsica and Pelchat, 2010; Vandereycken,
69 2011), e.g. night eating (Stunkard et al., 1955), orthorexia (Bratman and Knight, 2001), or
70 food addiction (Randolph, 1956). Furthermore, there is an array of eating behaviors that do
71 not reflect disordered eating per se, but nonetheless seem to be associated with occasional
72 overeating and moderate overweight, e.g., restrained or emotional eating (Herman and Mack,
73 1975; Macht and Simons, 2011). Accordingly, it has been recognized that some eating
74 behaviors can be mapped onto a continuum ranging from normal to disordered eating (e.g.
75 Lowe et al., 1996).

76

77 Thus, it would appear to be inappropriate to focus on eating disorders and obesity as separate
78 entities. We understand our mission for *Frontiers in Eating Behavior* to create a view on
79 eating and its disorders on a continuum from healthy eating practices to disordered eating
80 behaviors. Therefore, findings from basic research on eating behavior are important to
81 understand disordered eating behavior. These findings may include research on how food and
82 food-cues are processed in the brain, mechanisms underlying successful and unsuccessful
83 self-regulation of eating, or social and environmental determinants of and individual
84 differences in food choice and consumption. In addition, there is increasing evidence that
85 eating behaviors, e.g. food preferences, are shaped by gene-environment interactions in early
86 childhood. Nevertheless, the role of experience, or learning (e.g. classic conditioning,
87 observational learning), is critical in the development of young children's eating behavior,
88 which may well carry over into adulthood (Havermans, in press). Thus, a better understanding
89 of the developmental aspects of eating behavior is essential to understand eating behavior in
90 adulthood. On the other hand, results from clinical studies may advance our knowledge
91 concerning non-clinical issues, which are relevant for most humans. For example, research on
92 triggers of and treatment approaches for reducing binge eating may also be useful to increase

93 dieting success or inducing healthier food choices in overweight individuals without eating
94 disorders.

95

96 Thus, we encourage researchers to break away from isolated, categorical views on normal vs.
97 disordered eating, homeostatic vs. hedonic concepts or physiological vs. psychological
98 mechanisms. We hope that *Frontiers in Eating Behavior* will increase the awareness of a
99 more comprehensive view on eating behavior and advance our understanding of a behavior
100 that is essential for our survival as individuals and as a species.

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