## **BOOK REVIEWS**

## Wolfgang Stroebe

Dieting, overweight, and obesity. Self-regulation in a food-rich environment American Psychological Association, 2008, xii+275 pp. ISBN 0-4338-0335-6

One of the astonishing paradoxes of our epoch is the parallel existence of malnutrition, even starvation on extended parts of the world and, at the same time, the escalating phenomenon of global overweight and obesity, also known as "globesity". WHO declared war on obesity epidemic to save millions from serious damage to health and premature death associated with elevated weight. In 1995, there were an estimated 200 million of obese adults worldwide. As of 2000, this number climbed over 300 million. By 2005 the number exceeded 400 million, which meant that 9.8% of the adult population was obese that year. The obesity epidemic is not restricted to industrialized countries; more than 115 million people are affected by obesity-related problems in developing countries. The increase in childhood obesity is specifically alarming: in 2010, an estimated number of 42 million children under the age of 5 were obese. WHO defines overweight with a body mass index (BMI) greater than or equal to 25 kg/m<sup>2</sup>, and classifies individuals obese with a BMI greater than or equal to 30 kg/m<sup>2</sup>. BMI is obtained by dividing weight (in kilograms) by height (in meters squared) (WHO, 2012a, 2012b, 2012c).

The development and maintenance of obesity is a complex, multifactorial process characterized by the contribution of genetic, hormonal, metabolic, psychological, social and environmental factors. Considering the remarkable and stable growth in the number of overweight and obese people during the previous decades, it is unlikely that biological determinants are primarily responsible for such an increase. Our pre-wired behaviors and preferences which had proved to be evolutionary adaptive, now fail to keep up with the rapid and radical changes in the social and cultural environment, thus they undermine adaptation and survival in our modern world.

Stroebe focuses on psychological issues of dieting in Dieting, overweight, and obesity. Self-regulation in a food-rich environment. The major question addressed in this volume is the following: Why do so many people become overweight and obese and why do individuals who are overweight or obese find it so difficult to lose weight? (p. 4). Eating unhealthy foods, violating dieting rules and living a sedentary lifestyle without physical exercise are only a few examples of self-regulation problems related to the increased body weight. Stroebe gives a clear introduction to the reader into the epidemiology of overweight and obesity, the genetic background of energy balance, environmental causes, and the determinants of weight regulation in obese adults. Following the introductory part, he presents the main psychological theories dealing with the problematic nature of weight-control. The author carefully reviews and considers impressive body of empirical data before delineating the

pros and cons of these theories before proposing a new, cognitive model based on conflicting goals.

After the *first introductory chapter*, the author presents the strikingly ascending rates and epidemiologic features of obesity in *Chapter 2*. Apart from the deteriorating effect of obesity on health, being obese generates numerous social and psychological consequences. Obese individuals – especially obese women – are target of prejudice and discrimination, at least in western cultures. Related social psychological studies have demonstrated that those with elevated weight find it more difficult to form a romantic relationship, to be admitted to college and they earn less compared to equally competent normal-weight co-workers. Obesity also breeds discrimination among children and adolescents: they are frequently targets of offenses and bullying. Due to the deep-rooted cultural ideal of slimness it is not surprising that overweight and obese people suffer from lower self-esteem and elevated levels of depression compared to their normal-weight peers.

The third chapter is a brief, although informative introduction to energy intake (different characteristics of macronutritients), storage and output (resting metabolic rate and physical activity). Currently, there is a debate in the scientific literature as well as in the popular media channels about the extent of genetic influence on obesity. Genetics play an important role in obesity, but the extent of importance varies depending on the individual. Stroebe refers to Bouchard and Rankinen (2008) who distinguished four different levels of genetic contribution to obesity. True genetic obesity is due to a single gene-mutation, accounting for only 5% of obesity cases. Genetics play a diminished role on the next three levels. In the meantime, the less influence genetic factors have, the more the environmental effects become significant in determining weight. In the last 3 decades these environmental effects have been becoming gradually threatening to our health. In the fourth chapter Stroebe examines the environmental changes that may be responsible for the frightening increase in overweight and obesity rates. Two broad categories can be identified within these changes: the increase in availability, marketing and consumption of high-calorie food; and decrease in physical activity. Fast food has started its career in the USA, but did not remain an exclusively American phenomenon. The first McDonald's in Europe opened in the Netherlands in 1971, and since then, the expansion is unbroken. By 2007, the company had 31,000 restaurants in more than 100 countries. Simultaneously, portion sizes have dramatically increased. According to scientific evidences the author reviews, it has a direct effect on the amount consumed. Powerful marketing strategies and media advertisements are proved to significantly

influence consumers' decisions. It is depressing to hear that according to evidence, children are exposed to an even larger percentage of (unhealthy) food advertisements on TV than adults. Parallel to the growth in easy-to-access fast food, environmental changes foster physical inactivity. Luckily, there is a glimmer of hope; information on trends in leisure-time physical activity suggests that activity levels have increased – at least in the US and UK over the last couple of years.

Readers come to know the two classic psychological theories of obesity, namely the psychosomatic and the externality theory in *Chapter 5*. The former one – originally formulated by Kaplan and Kaplan in 1957 – is based on the principles of learning theory. According to the psychosomatic theory, obese people overeat because of a disturbance in appetite (e.g. hunger is associated with fear) or they overeat to reduce stress and anxiety. The externality theory hypothesizes a misinterpretation of strong emotions as hunger signals among obese individuals. In this sense, food-intake is triggered by external cues, not internal ones. The author reviews an impressive body of longitudinal and cross-sectional studies to determine causes and effects and judge the plausibility of explanations offered by these two theories. Following this, the boundary model of eating is presented in the next chapter - again, through review of scientific evidence and as throughout the book, in an articulate, serried and lucid style. This model assumes that restrained eaters (or chronic dieters) regulate their food-intake cognitively through the application of dieting rules, specifying the amounts and types of foods which can be consumed. The second assumption of the model states that restrained eaters are less sensitive to their own bodily signals of hunger and satiation. According to the model, emotional distress and the violation of dieting rules are the main triggers of overeating. (The latter is called "what-the-hell effect": if restrained eaters realize the violation of dieting rules they abandon all dietary concerns. Most of the dieters know this effect, which often culminates in wolfing down huge amounts of food.) Boundary theory is successful in predicting outcomes and dominates empirical research in the field; however it has been criticized on empirical and theoretical grounds as well. To answer the limitations of the boundary model Stroebe and his colleagues developed a cognitive process theory of eating. This is the subject of *Chapter 7*.

The boundary model as well as the well-known theory of planned action both assumes that goal-directed behavior is a conscious, volitional process. In contrast, Stroebe presents evidence and the theoretical basis of nonconscious goal pursuit (e.g. priming effect). Stroebe's goal conflict theory of eating assumes the following: Eating behavior of restrained eaters is dominated by a conflict between two incompatible goals, namely the goal of enjoying palatable food (eating enjoyment) and the goal of losing weight (weight control) (p. 141). For restrained eaters, the goal of weight control is chronically cognitively accessible, while the goal of eating enjoyment is cognitively suppressed and therefore less accessible. This is the ideal state for dieting: the individual follows the dieting rules, suppressing the tempting thoughts of having a slice of pizza while concentrating on the future benefits of losing weight and getting in shape. The source of the problem lies in the continued exposure to environmental cues: advertisements of fast foods, snacks, vending machines offering Smarties, smells from a bakery on the street or chips and other snacks in a pub. These cues increase the cognitive accessibility of eating enjoyment (advertisements often emphasize the joy of nibbling a chocolate bar or a cheeseburger) while the goal of weight control is cognitively inhibited. The outcome is a breakdown of self-regulation and the consummation of 'prohibited' edibles.

By the help of creative experimental designs (e.g. using implicit association test) researchers have obtained data supporting the hypotheses that restrained eaters – compared to non-restrained ones – have "hot", vivid and visual representations of food, and they are less able to divert their attention from tempting palatable food. This combination can undermine the success of any type of diets: continued exposure to environmental cues activate vivid representations in obese restrained eaters. This turns the cognitive balance from the goal of weight control to the goal of enjoyment. Restrained eaters' reduced capacity to divert attention from "hot" representations makes it more likely to transgress dieting regulation.

As concluding remarks, the author presents the strengths of the goal conflict model by explaining data which was inconsistent with previous theories and which is now plausible within the frames of the current theory.

The *last chapter* is devoted to the efforts of treatment and prevention. Stroebe reviews scientific literature to determine the efficacy of different weight-loss programs, from behavioral treatments to diet and exercise combination. Evidence indicates that substantial weight loss is attainable, although the loss is most likely to be regained in some years. Obesity is a multifactorial disease, and the psychological causes – relying on emerging empirical and theoretical evidence – can be efficiently targeted. However, joint efforts are indispensable between public health interventions, prevention strategies and long-term action plans to stop the obesity epidemic. Stroebe's volume attempts to generate hope in readers; hope that psychology can contribute or even be the very key to the noble mission of improving the well-being of human beings.

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## Eric Hollander, Joseph Zohar, Paul J. Sirovatka and Darrel A. Regier (Eds.)

Obsessive-compulsive spectrum disorders. Refining the research agenda for DSM-V American Psychiatric Association, Arlington, Virginia, 2011, XXIV + 233 pp. ISBN 978-0-89042-659-3

Obsessive–compulsive spectrum disorders contains a selection of review articles which reflect the proceedings of a research planning conference on the same topic, held in June, 2006 in Arlington, Virginia. Published 5 years later, studies examine phenomenology, comorbidity, familial and genetic features, brain circuitry and treatment response between ob-

sessive-compulsive disorder (ODC) and several related disorders that are characterised by repetitive thoughts or behaviours. Where has research and evidence led the field in the past couple of decades? What are the blind spots and future directions? These are the questions this book attempts to answer.

In *Chapter 1*, Fineberg, Saxena, Zohar and Craig argue that despite similarities, ODC is clearly distinguishable from anxiety disorders, depression, schizophrenia, addictive disorders, hypochondriasis, body dysmorphic disorder, grooming disorders, Tourette's syndrome, Axis II disorders, ODCPD and Axis III disorders. Authors review evidence based on epidemiology, comorbidity, family studies, neurobiology and psychopharmacology to argue that although study outcomes suggest substiantial endophenotypic similarities between OCD

and the disorders above, overall, there are more differences than similarities. Conclusively, evidence suggests modifying the conceptualisation of OCD away from anxiety disorders where differences emerge.

Because of preoccupancy of the body as well as of food-and-weight, body dysmorphic disorder (BDD) and eating disorders (EDs) have been considered candidates for inclusion in OCDs or obsessive-compulsive spectrum disorders (OCSDs). In Chapter 2 Phillips and Kaye conclude that these disorders are not identical but probably related, and more research is needed to draw reliable conclusions regarding the nature of their relationship. Phillips and Kaye raise an interesting issue for consideration: delusionality for possible inclusion in BDD's diagnostic criteria - either (or both?) as a dimensional or a categorical construct. Anorexia is particularly associated with OCPD, however, these patients have ego-syntonic symptoms, are resistant to treatment and lack insight dissimilar to OCD individuals. There is evidence for common premorbid vulnerabilities to eating disorders, such as obsessionality and perfectionism, which should be considered for inclusion as part of the diagnostic criteria for EDs in DSM-V.

In *Chapter 3* Ferrão, Miguel and Stein raise the question of whether Tourette's syndrome and trichotillomania are best conceptualised as OCSDs or are separate diagnostic categories. Based on studies related to the nature of obsessions, the intentional repetitive behaviour, comorbidity, course of the illness and psychobiology, the authors argue that there is a possible continuum between OCD and Tourette's syn-

drome in which patients with OCD plus tics have intermediate phenotypic features. Furthermore, given that SSRIs are more robust than noradrealine RI-s in the treatment of OCD, it is possible that trichotillomania is best conceptualised as an OCSD. Nevertheless, Tourette's syndrome remains arguably the disorder most closely related to OCD.

Impulse control disorders (ICDs) and OCD have been conceptualised to lie along an impulsive/compulsive spectrum for they share many common endophenotype domains. Potenza, Koran and Pallanti describe in Chapter 4 the rather complex nature of similarity and differences between impulsivity and compulsivity and the role of subgroups within OCSDs. Through examples, such as intermittent explosive disorder and pathological gambling, they conclude that the group of ICDs as a whole remains understudied and that additional research is needed to obtain evidence for clustering individual ICDs together.

Chapter 5 by Leckman, Rauch and Mataix-Cols describes the symptom dimensions in obsessive—compulsive disorder. They argue the existence of qualitatively dissimilar phenotypical subgroups of the different symptom dimensions, as evidenced by temporal stabil-

ity, pre-morbid vulnerability traits and factor-analytical studies on different samples from children to adults. Taken together, studies suggest that a symptom-based dimensional approach may be useful in efforts to diagnose OCSDs. If dimensional approach is useful, then a significant portion of the individual variation seen in neuroimaging studies (and maybe in other studies too) may be accounted for by the unique mix of symptom dimensions seen in any given patient. Initial studies generally support this conclusion – so say the authors. They also add an evolutionary perspective to OCSDs arguing that many of these behaviours were at times adaptive and likely to increase the chances of survival and reproductive success. For example, post-partum intrusive thoughts of hurting the baby were relieved by the performance of compulsive checking behaviours, which, on the other hand, increased the infant's chances to survive. Behaviours associated with early parenting skills are, therefore, often subject to intense selective pressure.

The next 3 chapters of the book are dedicated to biological traits and correlates of OCDs and OCSDs. According to *Chapter 6* written by Nicolini, Arnold, Nestadt, Lanzagorta and Kennedy, nosology ought to be guided by etiology. A combined symptom dimensional approach within distinctive clinical subgroups is proposed as probably the most effective way of helping to identify the heritable components of OCD. Based on evidence from family and twin studies, segregation analyses and genome scans, they draft alternate and intermediate phenotypes to OCD before taking into account the environment's role in symptom development. The



authors claim that expanding genetic knowledge permits clinicians to develop and effectively use medications to treat OCD and related disorders. The goal of genetic research is, after all, to provide improved and earlier diagnosis of OCD and enhance the importance of prevention programs.

Hollander, Wang, Braun and Marsh summarise neurological considerations in Chapter 7. They focus on autism and Parkinson's disease, as both manifest a spectrum of behavioural symptoms including compulsive-impulsive disturbances. Despite the vast difference in age of onset, both pathologies include impaired theory of mind and parkinsonian gait disturbances which suggests shared pathology in frontal systems and the basal ganglia. Besides punding (which is characterised by intense engagement in purposeless repetitive activities such as sorting and arrangements of things), Parkinson's disease often co-occurs with ICDs such as pathological gambling (6%-7%) or hypersexuality (2%–4%). James Parkinson in 1817 described the patients as having premorbid personality traits of industriousness, punctuality, orderliness, inflexibility, cautiousness and low novelty-seeking. However, ICDs in Parkinson's are highly complex and reward driven and so dissimilar to the stereotyped repetitive behaviours of autism. Similarities point to the serotonergic dysfunction while differences are probably related to hyperdopaminergic states and striatal dysfunction.

Boulougouris, Chamberlain and Robbins describe, in Chapter 8, animal modelling of OCSDs as occurring on two levels, the etiological level (in terms of genetics and molecular pathology) and the symptomatic level (in terms of identifying suitable neurocognitive endophenotypes). We know that for example, psychogenic alopecia in cats or excessive grooming in mice (to the point of hair removal and skin lesions) is often elicited by stressful environments. Based on animal model, the authors draft the model of "signal attenuation" in which it is postulated that OCD results when behaviour receives weakened response feedback.

However, the extent to which behavioural phenotype in a cat/mouse/rat or any other animal could simulate all of the subtleties of the clinical syndrome remains relatively unknown.

Nevertheless, ritualistic behaviours are not of themselves indicative of OCD unless they exceed cultural norms. In Chapter 9 composed by Matsunaga and Seedat argues that people within a particular culture may share concerns, and these concerns are reflected in the obsessions and compulsions that manifest. For instance, HIV/AIDS is usually associated with fears and compulsions related to contamination which has been described in Western countries as well as in Japan – but such an OCD is less common in the rest of the world. Researchers tend to ignore that sociocultural variables influence self- and professional referrals to the psychiatric clinic which, however, may cause significant differences in study methodologies and often limits comparability across nations. Another neglected area relates to religious obsessions which may remain underdiagnosed and delay professional help depending on the sub-cultural era.

Obsessive-compulsive spectrum disorders. Refining the research agenda for DSM-V is undoubtedly a substantial volume for those searching for summary of information and future directions. Written by experts in the field, the book regards obsessive-compulsive spectrum disorders as heterogeneous, which, however, collects similar categories or (and?) dimensions. Out of the 33 authors, 24 is of medical background which results in an excellent yet comprehensive summary of neurobiological state and trait correlates of OCSDs as well as in the call for further physiology-related studies such as PET and MRI to further explore brain-circularity, neurotransmission, drug effects and so on.

As stated in Introduction, "Because OCD and especially OCSDs are underdiagnosed in patients who report a broad symptom of anxiety, a reclassification of OCD and related disorders into a broader category would promote better assessment of obsessive-compulsive symptoms, more accurate diagnoses, greater research efforts and potentially the development of more effective treatments" (pp. XXIV). How reclassification occurs, the rationale behind suggestions and what largely determines future research regarding obsessive-compulsive spectrum disorders is what lies in detail on 233 pages.

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