

Preface

This book describes the current state of the art of the neurobiology of eating disorders and provides the latest insights and ideas in the eating disorders field. Important breakthroughs in the last decade have improved our understanding of the etiology of eating disorders. Due to neuropsychological studies, we now understand better which alterations underlie disturbed cognitive processing in anorexia nervosa and now that these are being combined with imaging and genetics we start to understand the underlying neural circuitry and genetic pathways. Interestingly when combining the novel insights from the different chapters in the book, it emerges, for instance, that anorexia nervosa is accompanied by a deficit in reward processing and impaired behavioral flexibility which is driven by a high degree of cognitive control. Clearly, alterations in the dopamine system and an overactive dorsal neurocircuit (including for instance the dorsolateral prefrontal cortex) mediating cognitive processing are implicated, which may also underlie poor decision making. A new concept arises that anorexia nervosa is a neurodevelopmental striatocortical disorder. Because there are animal models that mimic traits of pathological eating behavior, it is possible that such models, when combined with advances in genetic research, will further contribute to unraveling the molecular pathways underlying eating disorders. That is, studies using animals and the application of genetic variation to explain different responses in human imaging studies may give us a better understanding of what goes wrong where in the brain of eating disorder patients. Finally, the treatments currently available for eating disorders in general, and anorexia nervosa in particular, are inadequate. Perhaps the most important aspect of new insights into how symptoms are coded in the brain is that this provides new targets for developing more effective therapies. Because of the critical need to advance treatment, we have included several chapters from pioneers in this field. In summary, based on the knowledge described in this book, we hope that people in the eating disorder field get inspired to explore new horizons for therapeutic interventions that are based on the new insights.

Utrecht, The Netherlands
La Jolla, CA, USA

Roger A.H. Adan
Walter H. Kaye



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Adan, R.A.H.; Kaye, W.H. (Eds.)

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