

# Preface

Motivation, defined as the energizing of behavior in pursuit of a goal, is a fundamental element of our interaction with the world and with each other. All animals share motivation to obtain their basic needs, including food, water, sex and social interaction. Meeting these needs is a requirement for survival, but in all cases the goals must be met in appropriate quantities and at appropriate times. Therefore motivational drive must be modulated as a function of both internal states as well as external environmental conditions. The regulation of motivated behaviors is achieved by the coordinated action of molecules (peptides, hormones, neurotransmitters etc), acting within specific circuits that integrate multiple signals in order for complex decisions to be made.

In the past few decades, there has been a great deal of research on the biology and psychology of motivation which is reviewed in this volume. Much of the work reviewed involves the investigation of specific aspects of motivated behavior using multiple levels of analyses. In this way, the underpinning neurobiological mechanisms that support relevant psychological processes can be identified. In this volume, the first part considers the neurobiology of components of healthy motivational drive, and includes chapters that are focused on specific motivational goals e.g. food, sex, social interaction, escape. The second part is concerned with neural measures and correlates of motivation in humans and other animals. The next three parts of the book deal with disorders in which abnormal motivation plays a major role. Much space is devoted to this aspect of motivation because deficits in motivation occur in a number of psychiatric disorders, affecting a large population, and severe disturbance of motivation can be devastating. Deficits in motivation fall into two distinct categories: Apathy and pathological deficits in motivation which are commonly seen in patients with schizophrenia and affective disorders. The other category involves problematic excesses in behavior including addictions, the pathological misdirection of motivation. Each of these categories is addressed in separate parts, which are followed by a part on the development of treatments for disorders of motivation. The first chapter in this volume provides a more detailed roadmap of the content and also discussion of the themes that cut across chapters

and parts of the book. It is hoped that the collection of reviews in the volume will expose scientists to a breadth of ideas from several different sub-disciplines, thereby inspiring new directions of research that may increase our understanding of motivational regulation and bring us closer to effective treatments for disorders of motivation.

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