

Preface

Mind and mental activity are very abstract scientifically concepts. Nevertheless, you immediately get some clarity when you think about determinants of human behavior. There is no doubt that human behavior is largely dependent on material (physical, chemical), organic and social stimulation. But behavior can be preceded by complex judgment, thinking and decision-making. Such processes are important examples of mental activity.

A short overview of the literature about the study of the mind and behavior, which is presented in the first chapter of this book, shows that the past and current research have led to extensive new knowledge about various forms of mental activity, its relation to behavior and the underlying neural systems.

But how it is possible to write a *very short* book about the mind and mental activity that extends existing knowledge considerably? The answer is manifold.

Most important is the existence of detailed knowledge about scientific concepts that relate to the central states and processes of mental activity. These findings come from researchers from around the world, including my own studies about the process of judgment. Examples of the findings include knowledge about cortical and emotional/affective arousal, perceptual learning (the most influential form of non-verbal and verbal learning), memory structures and systems, perceptual judgment (e.g., “The flowers in the vase are roses”), decision-making, and functions of the prefrontal cortex.

Essential was also the discovery of close relations between research results of different areas. An important example is the relation between concepts that are simple linguistic units (especially words) with perceptual and verbal meanings and memory structures that exist in the brain. Another example is perceptual judgment. The correct identification of a rose, for example, is not possible without concepts/memory structures that contain features that are distinctive to the features of other flowers.

The entire research process is comparable to the looking for a recipe for a tasty food due to certain ingredients. The ingredients are the concrete findings about interesting scientific concepts. The goal of the research process, however, is not a

tasty food but new concrete knowledge about the mind, mental activity and mental disorders.

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