The various debates concerning normativity permeate contemporary philosophy. In the philosophy of language, proponents of the genuine normativity of linguistic rules oppose the claims of those who consider language to be only hypothetically normative, or even purely descriptive. In the philosophy of mind, discussion is centered around the problem of whether our beliefs are normative. In law and morality, the idea that rules of behaviour are in some sense normative has constituted a constant point of reference since the beginning of both disciplines, and today's disagreements between constructivism, conventionalism and realism merely represent new incarnations of old controversies. One can even speak of the normativity of mathematics and logic, especially when the problem is raised against the backdrop of Wittgenstein's philosophy.

Paradoxically, it is quite difficult to define normativity. The most common such definition is that some rule of conduct or other precept is normative if it constitutes an objective reason for action – a formulation which underpins an important aspect of normativity. What is normative is objective or independent of one's individual beliefs, and thus it is not a mental phenomenon – reasons should not be mistaken for motives. Of course, not everyone agrees with this characterization: some claim that no objective reasons for action exist, only psychological motives; others claim that normativity is an elusive property, one which is indefinable by recourse to other, more familiar concepts. Be that as it may, the continuing debate over normativity remains a constant source of philosophical inspiration and controversy. It is not surprising, considering the issue at stake: the problem of normativity is

closely linked with the most pressing questions in the history of philosophy, such as those pertaining to the relation between facts and norms, the character of moral duty, or the nature of law or language.

The goal of the present collection is to examine the phenomenon of normativity from various perspectives. The essays are divided into three groups. Part I, *The Foundations of Normativity*, addresses the most basic questions connected with the concept of normativity. Robert Audi in "The Nature of Normativity and the Project of Naturalizing the Normative" provides an analysis of the issues surrounding normativity, as well as the possibility of naturalizing normative concepts. In particular, he examines the reasons behind such a naturalization project, the various models of naturalization, as well as some issues connected with moral perception and moral reasoning. He defends the claim that only a part of the normative knowledge may be subject to naturalization, for although moral properties are 'anchored' in the physical world, they may not be fully reducible to it. Jan Woleński's paper "Some Analogies Between Normative and Epistemic Discourse" is devoted to an examination of the formal properties of alethic, epistemic and normative notions. By utilizing some generalizations of the logical square, he uncovers striking formal similarities between normative and epistemic concepts, leading to the claim that epistemic modals are, in a certain sense, normative. Woleński suggests that the proper way to understand this conclusion is to admit that the normativity of knowledge arises as a result of the normativity of justification; he warns, however, that this stance may give rise to further theoretical problems. Jaap Hage in "The Deontic Furniture of the World. An Analysis of the Basic Concepts that Embody Normativity" analyzes various types of rules and the differences between rules and facts. He attempts to explain the nature of normativity by addressing the relations between motivating and guiding reasons. Furthermore, he examines such notions as duty, obligation, being obliged and ought-to-do, claiming that there is a clear difference between duties and obligations and neither one of them is an ought. Anna Brożek in her essay "The Naturalistic Fallacy From

a Methodological Point of View" examines the two famous formulations of the naturalistic fallacy attributed to Hume and Moore. With recourse to various semiotic and formal tools, she attempts to show that both the Humean and Moorean arguments are inconclusive, having only historical value today. A counterpoint to her contribution is provided by Jerzy Stelmach's "The Naturalistic and Antinaturalistic Fallacies in Normative Discourse", where he observes that the acceptance of the dualism of Is-Ought leads to a theoretically hopeless situation, in which one is destined to commit either the naturalistic or the antinaturalistic fallacy. Stelmach claims further that the only way out of this impasse is to embrace a radically monistic and nominalistic ontology.

Part II, Key Debates, is devoted to some of the most heated controversies surrounding the notion of normativity. Bartosz Brożek, in "The Normativity of Meaning", examines the traditional approaches to the problem of the normativity in language and claims that they all assume a formal view of language, one that is not compatible with the findings of contemporary linguistics, psychology, evolutionary theory and neuroscience. He suggests that by replacing the formal view of language with the 'embedded' view, one is in a position to explain and reconcile seemingly contradictory stances towards the normativity of meaning. A similar line of argument is offered by Aeddan Shaw in "The Perspectivist Account of the Normativity of Meaning Debate", where he claims – on the basis of recent findings in linguistics – that language can be reconstructed theoretically in many ways, giving rise to differing accounts of language's normativity. Mateusz Hohol, in "The Normativity of Mathematics. A Neurocognitive Approach", first examines the normative dimension of mathematics against the backdrop of the two traditional philosophies of mathematics, i.e., Platonism and formalism, indicating that they are not capable of accounting for the normative dimension of mathematical reasoning. He further claims that a satisfactory conception of mathematics can be constructed on the basis of the findings of cognitive neuroscience, where the normativity of mathematical thinking appears at the level

of mathematical concepts which are embodied as well as embedded in social practices. Marcin Gorazda's essay "Normativity According to Hayek" provides an overview of the conception of normativity developed by Friedrich August von Hayek. Gorazda compares Hayek's account with the various theories of normativity represented in legal philosophy, such as positivism, realism or natural law theories, and attempts to establish the superiority of Hayek's approach. Marta Soniewicka in "A Command Without a Commander – From the Paradigm of Normativity to the Paradigm of Responsibility", analyzes the Kantian concept of normativity in detail, based on the notion of obligation, against the backdrop of rival, value-based theories of Scheler and Hartmann. She claims that the latter approach is free from some of the problems which haunt the Kantian conception. Furthermore, she identifies a common ground between both stances: the search for the source of moral obligation beyond divine authority.

Part III of the collection, Normativity and Natural Sciences, puts together essays which examine the concept of normativity from the perspective of contemporary science, especially psychology, neuroscience and evolutionary theory. Edward Necka, in "Normativity: A Psychological Perspective", observes that 'normativity' is not a psychological term of art. He attempts to 'translate' or define the concept in such a way that it fits into the psychological conceptual scheme, and then analyzes the resulting definition through the prism of the findings of psychological experiments pertaining to self-control and intercultural moral differences. Marcin Siwek, Rafał Jaeschke, Dominika Dudek and Natalia Czyżowska, in "Moral Development, Normativity, and Mental Disorders", examine the effects of brain damage and mental disorders in the sphere of moral and, more broadly, normative behaviour. They observe, on the one hand, that the conceptual scheme utilized by psychiatrists and psychologists is morally neutral; on the other, by analyzing several cases involving patients with bi-polar disorder, they collect interesting insights pertaining to abnormal behaviour in the moral context. Bartłomiej Kucharzyk's essay, "Is There a Normative Module? Some Remarks on the Wason Selection Task

Experiments in the Field of Normative Reasoning", is devoted to various aspects of the claim of evolutionary psychology that a 'normative module' exists in the human mind, something which is a part of the 'social exchange mechanism'. He analyzes the conclusions which Tooby and Cosmides draw from the Wason Selection Task and similar experiments, and claims that, although various versions of the task constitute a useful tool in examining rule-processing, the experimental results do not directly imply the existence of a separate 'normative module'. Wojciech Załuski in "From Tit for Tat and Tribalism to the Golden Rule. Remarks on the Development of Moral Ideas" takes under consideration the so-called evolutionary ethics. He claims that the ethics in question cannot be considered an ethical system with a normative component, i.e. such that provides a morally mature person with adequate moral precepts.

Some of the papers collected in this volume were presented at the international conference entitled "The Many Faces of Normativity", held in Kraków in February 2012. The conference was organized, altogether with the contributions collected here, within the research project *The Limits of Scientific Explanation*, carried out at the Copernicus Center for Interdisciplinary Studies in Kraków and sponsored by the John Templeton Foundation.

Jerzy Stelmach Bartosz Brożek Mateusz Hohol