1. Record Nr. UNINA9910299809403321 Autore Gambarotto Andrea Titolo Vital Forces, Teleology and Organization: Philosophy of Nature and the Rise of Biology in Germany / / by Andrea Gambarotto Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-65415-2 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (XXII, 137 p.) Collana History, Philosophy and Theory of the Life Sciences, , 2211-1956 Disciplina 128 Soggetti Biology - Philosophy Science - History Philosophy of nature Philosophy of Biology History of Science Philosophy of Nature Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- I. Generation -- 1. At the Origin of German Vitalism: the Haller-Wolff Debate -- 2. Vital Force and Epigenesis: Wolff's Theory of Generation -- 2.1. Discarding the Invisibility Argument -- 2.2. The Progressive Organization of Parts -- 3. Goal-Directed Organization: Wolff and Blumenbach on Teleology -- 3.1. Wolff's Vital-Materialism -- 3.2. Realist-Teleological Vitalism: Blumenbach and the Bildungstrieb -- 4. Understanding Purpose: Kant as a Vitalist -- 4.1. Organized Beings and Machines: Kant on the Formative Force -- 4.2. Kant's Regulative Vitalism -- 5. Chemical Vitalism: Reil on the Vital Force --5.1. Vital Force as Result of Organization -- 5.2. Reil's Nomological Vitalism -- 6. Concluding Remarks -- II. Functions -- 1. The Göttingen School as Historical Category -- 2. Building Blocks of the Göttingen School: Haller on Vital Properties -- 2.1. Irritability and Sensibility: First Outline of Vitalist Physiology -- 2.2. "Vis Insita": Correlating Structure and Function -- 3. Foundations of the Göttingen School: Vital Forces in

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Sommario/riassunto

This book offers a comprehensive account of vitalism and the Romantic philosophy of nature. The author explores the rise of biology as a unified science in Germany by reconstructing the history of the notion of "vital force," starting from the mid-eighteenth through the early nineteenth century. Further, he argues that Romantic Naturphilosophie played a crucial role in the rise of biology in Germany, especially thanks to its treatment of teleology. In fact, both post-Kantian philosophers and naturalists were guided by teleological principles in defining the object of biological research. The book begins by considering the problem of generation, focusing on the debate over the notion of "formative force." Readers are invited to engage with the epistemological status of this formative force, i.e. the question of the principle behind organization. The second chapter provides a reconstruction of the physiology of vital forces as it was elaborated in the mid- to late-eighteenth century by the group of physicians and naturalists known as the "Göttingen School." Readers are shown how these authors developed an understanding of the animal kingdom as a graded series of organisms with increasing functional complexity. Chapter three tracks the development of such framework in Romantic Naturphilosophie. The author introduces the reader to the problem of classification, showing how Romantic philosophers of nature regarded classification as articulated by a unified plan that connects all living forms with one another, relying on the idea of living nature as a universal organism. In the closing chapter, this analysis shows how the three instances of pre-biological discourse on living beings – theory of generation, physiology and natural history – converged to form the consolidated disciplinary matrix of a general biology. The book offers an insightful read for all scholars interested in classical German philosophy, especially those researching the philosophy of nature, as well as the history and philosophy of biology.