Record Nr. UNINA9910451907303321 Autore Craver Carl F **Titolo** Explaining the brain [[electronic resource]]: mechanisms and the mosaic unity of neuroscience / / Carl F. Craver Pubbl/distr/stampa Oxford,: Clarendon Press New York: Oxford University Press, 2007 **ISBN** 0-19-956822-7 1-281-15533-0 9786611155339 0-19-153844-2 1-4356-2412-2 Descrizione fisica 1 online resource (329 p.) Disciplina 612.8 Soggetti Neurosciences - Philosophy Brain - Philosophy Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references (p. [272]-291) and index. Nota di contenuto Contents; List of Figures and Tables; 1. Introduction: Starting with Neuroscience; 2. Explanation and Causal Relevance; 3. Causal Relevance and Manipulation; 4. The Norms of Mechanistic Explanation; 5. A Field-Guide to Levels; 6. Nonfundamental Explanation; 7. The Mosaic Unity of Neuroscience; Bibliography; Index Sommario/riassunto What distinguishes good explanations in neuroscience from bad? Carl F. Craver constructs and defends standards for evaluating neuroscientific explanations that are grounded in a systematic view of what neuroscientific explanations are: descriptions of multilevel mechanisms. In developing this approach, he draws on a wide range of examples in the history of neuroscience (e.g. Hodgkin and Huxleys model of the action potential and LTP as a putative explanation for different kinds ofmemory), as well as recent philosophical work on the

nature of scientific explanation. Readers in neuroscience, psyc