Record Nr. UNINA9910449880403321 **Titolo** The dynamical systems approach to cognition [[electronic resource]]: concepts and empirical paradigms based on self-organization. embodiment, and coordination dynamics / / editors, Wolfgang Tschacher, Jean-Pierre Dauwalder Pubbl/distr/stampa River Edge, N.J., : World Scientific, c2003 **ISBN** 1-281-87679-8 9786611876791 981-256-439-X Descrizione fisica 1 online resource (345 p.) Collana Studies of nonlinear phenomena in life science; ; v. 10 Altri autori (Persone) **TschacherWolfgang** DauwalderJ. P <1945-> (Jean-Pierre) Disciplina 153 Cognition Soggetti Cognitive psychology Self-organizing systems 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 and indexes. Nota di contenuto CONTENTS; FOREWORD; INTRODUCTION; I Embodiment; INTELLIGENT BEHAVIOR: A SYNERGETIC VIEW; GROUNDED IN THE WORLD: DEVELOPMENTAL ORIGINS OF THE EMBODIED MIND; COGNITIVE COORDINATION DYNAMICS; II Coordination Dynamics; WHAT IS COORDINATED IN BIMANUAL COORDINATION?; COGNITION IN ACTION: THE INTERPLAY OF ATTENTION AND BIMANUAL COORDINATION DYNAMICS; A SYNERGETIC APPROACH TO DESCRIBE THE STABILITY AND VARIABILITY OF MOTOR BEHAVIOR; THE ROLE OF SYNCHRONIZATION IN PERCEPTION-ACTION; A MEAN FIELD APPROACH TO SELF-ORGANIZATION IN SPATIALLY EXTENDED PERCEPTION-ACTION AND **PSYCHOLOGICAL SYSTEMS**

III IntentionalitySELF-ORGANIZING SYSTEMS SHOW APPARENT

INTENTIONALITY; THE EMBODIMENT OF INTENTIONALITY; COGNITIVE SCIENCE, REPRESENTATIONS AND DYNAMICAL SYSTEMS THEORY; SELF-STEERED SELF-ORGANIZATION; BRAIN DYNAMICS: METHODOLOGICAL

ISSUES AND APPLICATIONS IN PSYCHIATRIC AND NEUROLOGIC DISEASES; SIRN (SYNERGETIC INTER-REPRESENTATION NETWORKS), ARTIFACTS AND SNOW'S TWO CULTURES; DYNAMICAL SYSTEMS THEORY: APPLICATION TO PEDAGOGY; LIST OF CONTRIBUTORS; AUTHOR INDEX; SUBJECT INDEX

Sommario/riassunto

The shared platform of the articles collected in this volume is used to advocate a dynamical systems approach to cognition. It is argued that recent developments in cognitive science towards an account of embodiment, together with the general approach of complexity theory and dynamics, have a major impact on behavioral and cognitive science.