# Preface

Systems intelligence, we have proposed, is a fundamental form of intelligence we all actively use when engaging with the interaction-rich systems of our everyday life.

Since the launch of our Systems Intelligence Initiative in 2002, we have served as editors for a series of volumes that have addressed a wide range of themes applying a number of methodologies. The articles have discussed and elaborated a host of aspects of systems intelligence, bringing together numerous seemingly unrelated phenomena, life situations and theoretical issues. The contributors have included researchers, educators, consultants, managers and students of different disciplines ranging from decision theory, environmental studies, architecture, computer science, management, organization research, philosophy, psychology, theology and psychotherapy. The current volume is the fourth in the series published in English, following three previous volumes in Finnish.

In the present volume the emphasis is on the foundational, conceptual, psychological as well as practice-oriented aspects of human intelligence. As is customary with systems intelligence, the essays represent a number of different methodologies, disciplines and topics of interest.

In the opening essay, Esa Saarinen and Raimo P. Hämäläinen elaborate on systems intelligence as an original form of human intelligence paying particular attention to the origin of intelligence in the light of infant research. The paper argues for systems intelligence as an integrating framework which complements earlier work on human intelligence. In his three essays, John Rauthmann discusses conceptually and empirically systems intelligence with respect to classical conceptualizations of intelligence and with respect to certain essential psychological themes. His first article studies systems intelligence as a trait and ability, investigating the connections of the construct to previous psychological intelligence literature. In his second contribution, Rauthmann develops a new systemic meta-model of personality. In his third essay, Rauthmann proposes a trait-SI scale for operationalizing the concept. Based on his original proposal, Rauthmann goes on to report what is the first empirical attempt to measure systems intelligence.

In his methodologically innovative essay, Kalevi Kilkki creates a social systems map of systems intelligence by presenting and applying a novel web search engine methodology to the construct of systems intelligence. The result is a description of the connections of the notion of systems intelligence with concepts in other disciplines and with some leading scholars in those disciplines. This is followed by an essay by Otso Palonen with a discussion of learning from the perspective of systems intelligence. In their contribution, Ella Rönkkönen and Esa Saarinen take the bold step of applying chemical engineering to an analysis of the Broaden and Build Theory of positive emotions developed by Barbara Fredrickson, and then link Fredrickson's insights with systems intelligence. Anne Birgitta Pessi uses systems intelligence to analyse volunteerism, presenting a fresh conceptualization of that domain. The final essay by Pia Tikka reflects cinema as an intersubjective neuroscientific experience. The concepts of embodied simulation and the

cinema author's mental workspace simulatorium are discussed in their relation to systems intelligence.

We hope the essays in this volume, along with those of the previous books, will inspire researchers and practitioners from different backgrounds and disciplines to find new insights on their own field, practices and themes of interest in the light of systems intelligence.


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Raimo P. Hämäläinen                                                   Esa Saarinen


Systems Intelligence volumes:

Raimo P. Hämäläinen and Esa Saarinen, eds. 2008. *Systems Intelligence – A New Lens on Human Engagement and Action*. Espoo: Helsinki University of Technology, Systems Analysis Laboratory.

Raimo P. Hämäläinen and Esa Saarinen, eds. 2007. *Systems Intelligence in Leadership and Everyday Life*. Espoo: Helsinki University of Technology, Systems Analysis Laboratory.

Raimo P. Hämäläinen and Esa Saarinen, eds. 2004. *Systems Intelligence - Discovering a Hidden Competence in Human Action and Organizational Life.* Espoo: Helsinki University of Technology, Systems Analysis Laboratory.

All of these books and the individual articles can be freely downloaded at
http://www.systemsintelligence.tkk.fi.


See also these recent papers:

Jukka Luoma, Raimo P. Hämäläinen, and Esa Saarinen. Forthcoming. Acting with systems intelligence: Integrating complex responsive processes with the systems perspective. *Journal of the Operational Research Society*, advance online publication, 13 January 2010 (DOI 10.1057/jors.2009.175).

Esa Saarinen. 2008. Philosophy for managers, *Philosophy of Management,* vol. 7 supplement.

Raimo P. Hämäläinen and Esa Saarinen. 2008. Systems Intelligence - The way forward? A note on Ackoff's "Why few organizations adopt systems thinking", *Systems Research and Behavioral Science*, vol. 25, no. 6, pp. 821–825.

Jukka Luoma, Raimo P. Hämäläinen, and Esa Saarinen. 2008. Perspectives on team dynamics: Meta learning and systems intelligence. *Systems Research and Behavioral Science*, vol. 25, no. 6, pp. 757–767.