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(eds.)

Systems of Logic and the Construction of Order

Consciousness and Human Systems

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Introduction: Logic or logics - What would be logical?

This volume "Systems of Logic and the Construction of Order" is the first in a series on Consciousness and Human Systems that is devoted to promoting the study of the human being in the broader psycho-bio-physical contexts, focusing on consciousness, cognition, meaning and creativity. The published volumes will present discussions of different aspects of the nature and behavior of human beings, grounded in social, cultural, philosophical, biological and physical perspectives.

The present volume focuses on logic. The issue that has inspired the preparation of the volume is the set of contradictions besetting the concept of logic. For example, on the one hand, logic is held in high esteem, especially by those who value reasoning and science, but on the other hand, evidence shows that most people do not use logic in daily life and barely apply it in their work and reasoning. Further, on the one hand, logic is considered as the "crown" of the sciences, but on the other hand, it turns out that logic refers to very specific rules that apply to very specific and narrow domains. How can we resolve these and similar contradictions?

In our quest for answers, we have ventured to explore the multiplicity and variety of logic types and their role for the cognition and construction of realities. The seven authors have dealt with the issues of logic in the different domains of their expertise.

Shira Elqayam focused on logic in psychology, describing the shortcomings, failures, limitations and achievements of individuals in handling logical issues and reasoning in conformity with logical rules.

Shulamith Kreidler presented a meaning-based approach to logic, which enables defining four different kinds of logic, grounded in four types of semantic forms: classical logic, analogical logic, instance logic and metaphoric logic.

Laszlo Ropolyi ventured into the very intestinal depth of reasoning, clarifying an issue that is a *sine qua non* for every kind of logic: the difference between *thinking* and *thinking of*, between the process and the state, between the quest and the finding.

Laszlo Mero focused on the logic of scientific thinking, tackling audaciously with astounding clarity and simplicity the question of what is a natural law in the sciences.

Ron Kreidler's chapter leads us into the uncharted and fascinating territory of quantum mechanics, suggesting that the apparently illogical image of the field originates from a misinterpretation of the principles underlying dimensions in general

and extra dimensions in particular. His venture culminates in a formula for the contextualization of dimensions in the framework of dimensional sets called *Functions* with implications in regard to the Uncertainty principle and the paradox of time reversal.

Adva Margaliot's chapter is on a very different ground. Her goal is to decipher the nature of creativity, so that despite its complexity and demanding nature it becomes accessible to individuals and may be taught to teacher trainees studying to become science teachers. She presents a five-stage model of promoting creative thinking, based on melioration, and integration of knowledge from different sources. Her approach and study demonstrate that creativity has a different kind of logic than other cognitive abilities but can coexist with them and complement them as a meaning-generating tool.

The final chapter by Katalin Varga is an enticing exploration and unveiling of a barely known realm where suggestion, hypnosis and placebo effects reign. In a masterful way Varga renders these constructs familiar, explains how they function, shows the broad ranges of their effects and indicates how they could be mobilized for our benefit and well being.

For anyone interested in thinking, science, psychology, teaching, physics, creativity, trance, suggestion, meaning, in the logical and the illogical – it would be illogical not to expose oneself to the logic (or logics) of this book.

The Editors