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Sommario/riassunto	<p>This book deals with applications of quantum mechanical techniques to areas outside of quantum mechanics, so-called quantum-like modeling. Research in this area has grown over the last 15 years. But even already more than 50 years ago, the interaction between Physics Nobelist Pauli and the psychologist Carl Jung in the 1950's on seeking to find analogous uses of the complementarity principle from quantum mechanics in psychology needs noting. This book does NOT want to advance that society is quantum mechanical! The macroscopic world is manifestly not quantum mechanical. But this rules out that one can use concepts and the mathematical apparatus from quantum physics in a macroscopic environment. A mainstay ingredient of quantum mechanics, is 'quantum probability' and this tool has been proven to be useful in the mathematical modelling of decision making. In the most basic experiment of quantum physics, the double slit experiment, it is known (from the works of A. Khrennikov) that the law of total probability is violated. It is now well documented that several decision making paradoxes in psychology and economics (such as the Ellsberg paradox) do exhibit this violation of the law of total probability. When data is collected with experiments which test 'non-rational' decision making behaviour, one can observe that such data often exhibits a complex non-commutative structure, which may be even more complex than if one considers the structure allied to the basic two slit experiment. The community exploring quantum-like models has tried</p>

to address how quantum probability can help in better explaining those paradoxes. Research has now been published in very high standing journals on resolving some of the paradoxes with the mathematics of quantum physics. The aim of this book is to collect the contributions of world's leading experts in quantum like modeling in decision making, psychology, cognition, economics, and finance.

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