STATEMENTS

belonging to the dissertation

REPRESENTATIONS OF CHOICE SITUATIONS

by

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STATEMENT 1. The approach to game theory, in which payment is not assumed to be in ("von Neumann-Morgenstern") utility, but in a real quantity such as money or a good, gives interesting research-problems.

Wakker,P.P.(1986), "The Existence of Utility Functions in the Nash Solution for Bargaining". In J.H.P. Paelinck & P.H. Vossen (Eds.), Axiomatics and Pragmatics of Conflict Analysis (Studies in Interdisciplinary Issues), Gower Press, Aldershot.

STATEMENT 2. The Impossibility Theorem of Arrow (see Arrow, 1978) is not a surprising result if one realises that transitivity of a group-preference relation is reasonable only if the group-preferences between alternatives x,y, between alternatives y,z, and between alternatives x,z, are obtained under "ceteris paribus conditions", entailing among others that the group, while obtaining the three preferences, always possesses the same information, whereas the "independence of irrelevant alternatives" condition entails to the contrary that the three preferences are based upon different information.

Arrow,K.J.(1978), "Social Choice and Individual Values", 9th edition. Yale University Press, New Haven.

STATEMENT 3. By means of optimization theory one can prove that a non-expansive map from a subset of $\mathbb{R}^n$, to $\mathbb{R}^n$, can be extended to a non-expansive map from $\mathbb{R}^n$ to $\mathbb{R}^n$.

Wakker,P.P.(1985), "Extending Monotone and Non-Expansive Mappings by Optimization", Cahiers du C.E.R.O. 27, 141-151.

STATEMENT 4. Statistical testing by means of significance-tests does not satisfy the "sure-thing principle".

Wakker,P.P.(1981), "The Additivity Principle in Decision Making under Uncertainty", Report 81-35, Department of Mathematics, University of Leiden.

STATEMENT 5. The first remark in section 2 of Wakker(1981) indicates that the part of section III.4 on top of page 43 in Savage(1954), has not been read by many people.

Savage, L.J.(1954), "The Foundations of Statistics". Wiley, New York.

Wakker,P.P.(1981), "Agreeing Probability Measures for Comparative Probability Structures", The Annals of Statistics 9, 658-662.

STATEMENT 6. The "refutation" of skepticism, based upon the reasoning that a skeptical person thinks to know that he knows nothing, thus thinks to know something after all, (see O'Connor & Carr, 1982, on top of page 3), is not correct since a skeptical person only, taking for a moment as point of departure that he may know something, comes to conclude that he knows nothing, and does not consider the resulting contradiction a refutation, but to the contrary a confirmation, of his attitude.

O'Connor,D.J. & B. Carr(1982), "Introduction to the Theory of Knowledge". University of Minnesota Press, Minneapolis.

STATEMENT 7. According to the criterion that empirical scientists should be concerned only with matters leading to observable, i.e. verifiable or falsifiable, results, empirical scientists should not be concerned with the criterion that empirical scientists should be concerned only with matters leading to observable, i.e. verifiable or falsifiable, results.

STATEMENT 8. If one wants to consider thinking sports, such as chess, as sciences, and one wants to consider for example the supposition in chess that a winning position for white results if in the beginning position the black queen and a white knight are removed, as a law of these sciences, then these sciences belong to the inductive, and not the deductive, sciences.

STATEMENT 9. In the game of chess, after the beginning moves 1.e4 - e6. 2.d4 - d5. 3.Nd2 - Nf6. 4.e5 - Nfd7. 5.Ld3 - c5. 6.c3 - Nc6. 7.Ngf3 - f6. 8.Ng5 - fg5!, not white has a won position (as many books on opening theory claim, see Matanovic, 1981, footnote 109 at variation C05-21), but black, because after 9.Qh5^{+} - g6. 10.Bg6^{+} - hg6.11.Qg6^{+} - Ke7 black has the contra-sacrifice N7xe5, for example 12.Nc4 - N7e5!, as in the game H. Otten - P.Wakker (1982, Leiden, 3d round of the Notenboomtournament), or 12.Nf3 - N7e5!.13.Bg5^{+} - Kd7.14.de5 - Be7.15.h4 - Qg8, or 12.Ne4!?(H.J.Goeman) - Nde5.13.Bg5^{+} - Kd7.14.Nf6^{+} - Kc7. 15.Ne8^{+} (15.de5 - Ne5) - Kd7.16.Nf6^{+} - Kc7.17.Ne8^{+} - Qe8!.18.Qe8 - Bg7.

Matanovic, A.(Ed.,1981), "Encyclopedia of Chess Openings C, Vol. I. Second edition." Batsford, London.

With thanks to international chess-grandmaster John van der Wiel for checking and approving of the above Statement (and for refuting some other new opening variations).

STATEMENT 10. For the acquisition of knowledge of oneself, possession of a conscience is a hinder.