

CHESS GAME AND KASPAROV-DEEP BLUE TOURNAMENTS AS A STRUCTURE TRANSITIONS RAW

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Great number of chess parties demonstrate us some general regularities, allowing to consider it's development as a phase transition chain from initial ordered two phase structure to some new structure, with the given characteristics. Process is stochastic initiate by one of twenty possible moves (freedom degree $V_i = \sum V_{ij}$), which break initial symmetry and general equilibrium. Structure transformations are within number of restrictions $C_i = \sum C_{ij}$ on the process defined by the chess rules. Structure and composition of one from two phases are change or save a constancy after each move changing structure of other phase. Result of game is defined by the sequence of realization own V_{ij} within existing C_{ij} and restrictions of the adversary freedoms. If after n -th move black and white are in the *thermodynamic* equilibrium, Gibbs phases (partners) potentials $G_i(n) = U - TS + pV$ are equal. In initial positions $\Delta G_{wb}(0) = 0$. Hereinafter sign $\Delta G_{wb}(n)$ depends on whose profit a board situation forms, but value is defined by the degree of equilibrium disbalance. Components $G_i(n)$ are calculate through V_{ij} and C_{ij} . Initial structure disorder is accompany by the V_i growing and C_i reduction up to $V_i \sim C_j$ at the moment of debut completions. Goal-directed ordering with forming a desirable structure hereinafter proceed with variation of V_w / V_b and C_w / C_b ratios at cost of P_w / P_b , where $P_{ij} = V_{ij}$ is a potential of figure j , realizing *when and if* it will be in the empty board centre. VCP game's diagrams of Kasparov - Deep Blue tournaments are analyse by means of the analytical program "Vinny". On psychophysiology reasons human logically summaries factors in $\Delta F_{wb}(n)$ with one or another it's relative weights (priorities) only, but cannot multiply its as Gibbs potential calculation requires. Human evaluation so close to thertnodynamical that more exactly he take in account factors combination and it's weights. Approaching the human evaluations to thermodynamical maybe taken as a test of personnel possibilities to carry responsible decidings on bases, not always yield to formali-zations and in exceeding circumstances particularly.. Deciding will be so more correct and results so more positive as laws of corresponding field of activity, success and losses are stronger determined. VCP-diagrams in join with $\Delta G_{wb}(n)$ and $\Delta F_{wb}(n)$ sufficiently exactly reflected a chess authorities commentary on tournaments 96 and 97. Notable for example, that ((thermodynamic)) evaluations of losed by Kasparov second game 97 are opposite to "human's" and wrong priorities and weights could to confuse Grossmeister on one or another reasons. The sequence of game's results 96 - 97 demonstrate some ((phase transformation)) of the adversaries not only from year to year but from game to game, especially in the tournament 97: Kasparov's results are drop and IBM command's results are increase in contrast with the tournament 96. But Deep Blue 97 didn't exceed Kasparov's level 96.