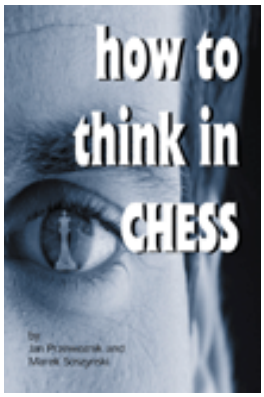
SKITTLES ROOM



Chessplayers have long sought methods of improving their play. In pursuit of that goal, some classics have been written. These include the *Modern Chess Instructor* by Steinitz, *My System* by Nimzovich and more recent works by Kotov and Yermolinsky.

On May 15, *How to Think in Chess* (288pp., $24.95, Russell Enterprises, Inc.) will be released. Authored by Polish International Master Jan Przewoznik and Marek Sosynski, it deals with the problem of improving a chessplayer's thinking so that he or she will be better able to better cope with the complexities of the modern game.

The authors: **Jan Przewoznik,** champion of Poland in 1979, is an International Master and one of his country's most prolific writers on the game. **Marek Soszynski** is a philosopher, having specialized in aesthetics at universities in England and Poland. He was a strong player on the British correspondence chess scene and makes his living as a writer, translator, and website designer.

Enjoy...

How to Think in Chess

by Jan Przewoznik and Marek Soszynski

Excerpt: Introduction

How to think in chess? This question has the broadest possible range. At one extreme it refers to the immediate problem facing every chessplayer with an ounce of fight left in him – what move to play next on the board. At the other extreme it refers to the lifelong problem facing every player with an ounce of ambition left in him – what move to make next in one's development.

If you want to get better, you have to change. And you have to change because some of what you do now is flawed or second-best. But which part of your thinking is not quite right? *Know thyself* is a developmental principle familiar since the days of Socrates, and its worth is repeatedly proved in many walks of life. It is obligatory in chess training, when it is worthwhile noting not only what you do, but also how you are doing it, how you think, and how you solve problems. This very necessary self-knowledge applies both to minute details (of individual moves, and immediate game plans) and to the overall picture (of your character, and your future chess career). Unless you know where you are, and

where you want to go, progress is impossible.

Let us begin with the thinking that takes place during a game. The moves on a chessboard can be praised or criticized in isolation, but they are the result of thought processes that can and must themselves be investigated. Here we draw on the classic research of the Dutch psychologist and chessplayer, Adriaan de Groot. Around the time of the famous AVRO tournament in 1938, and later, he was able to question several of the world's top players (Alexander Alekhine, Max Euwe, Reuben Fine, Salo Flohr, Paul Keres, and Saviely Tartakower) subject them to various chess tests and then compare their responses and results with those of weaker players (such as two female Dutch champions). One outcome was unexpected. To put it very briefly, when deciding on a move, the stronger players did not calculate any deeper than the weaker ones. The Grandmasters could memorize positions from typical games very well indeed, and seemed to have a huge internal store of arrangements and patterns of pieces (or "chunks"), but de Groot did not find that they analyzed more or longer variations than the others. This finding still has the power to surprise even today.

Please do not misunderstand this. Strong players *can* calculate deeper – and faster, with fewer errors – than weaker players, but that cannot be the entire explanation for some top Grandmaster rapidly annihilating strong opposition in a simultaneous display. Just because titled players *can* calculate deeply, does not mean that they *do* that all the time in all their games, nor can their calculatory ability alone be the reason for their success. Take a quick glance at the following examples.

Najdorf–Pilz, Warsaw, 1934
1.d4 Nf6 2.c4 e6 3.Nc3 Bb4 4.Qc2 c5 5.dxc5 Bxc5 6.Nf3 d5 7.Bg5 dxc4 8.e3 0-0 9.Bxc4 Nbd7 10.0-0 h6 11.Bh4 Qa5 12.a3 Be7 13.b4 Qb6 14.Rfd1 a5 15.Rab1 axb4 16.axb4 Kh8 17.Nb5 Nb8 18.Bg3 Na6 19.Bd6 Ng8 20.Ne5 g6 21.Bxe7 Nxe7 22.Rd6 Nc6 23.Nxg6+ fxg6 24.Qxg6 Naxb4 25.Qxh6+ Kg8 26.Rxe6 Bxe6 27.Bxe6+ Rf7 28.Qg6+ Kh8 29.Bxf7 1-0.

"This game was awarded the first brilliancy prize and nobody was more surprised than me since I can remember at no time seeing more than two moves ahead." Thus reported Miguel Najdorf (*Chess Monthly*, September 1992)

Nunn–Tal, Wijk aan Zee, 1982
1.e4 c5 2.Nf3 e6 3.d4 cxd4 4.Nxd4 Nc6 5.Nc3 a6 6.g3 Qc7 7.Bg2 Nf6 8.0-0 h6 9.Nb3 Be7 10.a4 d6 11.f4 0-0 12.g4 Bd7 13.h4 b5 14.g5 Nh7 15.Be3 b4 16.Ne2 d5 17.exd5 exd5 18.Qxd5 Rac8 19.a5 Nb8 20.Ned4 Bg4 21.Rae1 Rfd8 22.Qe4 Re8 23.Bf2 Bd7 24.Qd5 Qd6 25.Nf5 Qxd5 26.Nxe7+ Rxe7 27.Bxd5 Rxe1 28.Rxe1 Rxc2 29.Re7 Bc6 30.Bxf7+ Kf8 31.Rc7 hxg5 32.Bc5+ 1-0.

"So far as I can remember," wrote the winner in his *Secrets of Grandmaster Chess*, "I hardly calculated a single variation more than a couple of moves deep during the entire course of the game." (Admittedly, this was not typical for the tactically oriented John Nunn.)

There is another important finding by de Groot, which has been confirmed again and again by later researchers. Chessplayers, including the very best, do not as a rule immediately make a short and neat mental list of candidate moves that they then consider one at a time, just the once. This is simply not how people approach most problems, nor is there any reason why they should approach all problems

that way. It is just one solving method among many; we give examples of more practical ones in Chapter III.

Why so many approaches to the problem of which move to play next? Why not a single, "true" way? Well, since many of the tactical and positional features of a position persist, what is discovered when weighing one line in detail, may be relevant to the analysis of another line considered earlier; that other line will then deserve a second look. Inevitably, the same lines will be reconsidered; rightly, the human player will recheck his conclusions. These are not defects in a chessplayer's thinking that ought to be criticized and trained out. And often when studying a specific strategy or a combination, some thought has to be given as to which move will initiate the whole thing, whereas the general idea or theme is already clear. In other words, a prior selection had been made from among candidate *plans* rather than moves. A player may quite reasonably have decided that his best prospects in a particular game lie either in central consolidation, or in a queenside minority attack, for instance. Clearly, this was not simply a choice between two next moves.

In Chapter II, four positions will be presented for solo analysis using the method of thinking aloud. Detailed analyses of these positions will be given, and then a specific way of analyzing chess thinking will be presented, according to which the reader will be able to evaluate his own thinking during the solving of problems, and decide the direction of further self-developmental work.

Of course, de Groot was aware that the method of thinking aloud creates certain difficulties, due to the need to think and verbalize simultaneously. In general, though, the subjects acknowledged that their decision-making process in the experiment corresponded to that of the tournament situation.

De Groot's studies were not widely discussed in the literature of either chess or psychology, but this seminal work deserves wider attention among chessplayers and psychologists interested in research into cognitive processes. It appears that the method of thinking aloud, although time-consuming and hard to carry out, can serve as a valuable complement to chess training.

The advantages of thinking aloud and protocol analysis

1. The method of thinking aloud, along with subsequent verbal protocol analyses, can develop in the chessplayer a habit of efficient, organized thought consciously applied in playing a chess game.

2. In critical positions, at decisive moments of the battle, the player can initiate a fixed procedure of thought, thereby becoming independent of his emotions or other factors that could disturb the thought process.

3. The trainer can gain an insight into the thought process of his young charge and discover how it progresses, something he would not discover if he concentrated only on the results of analysis.

4. The implementation of a certain methodological rigor during play, particularly at critical moments, can prevent time trouble (or cure it).

5. Using certain patterns of organized thinking does not at all curb creativity – quite the opposite. Skillfully put to good use, it can

foster the discovery of original ideas.

Chapter IV is devoted to the application of the method of thinking in chess. The reader will be able to apply the recognized ways of thinking during the solving of the problems. The guiding watchword for all of the problems is *fantasy*.

Fantasy will never disappear from chess. There will always be innovators in this field gifted at finding unconventional means of unraveling problems that arise on the chessboard – eliciting admiration from impartial and knowledgeable observers. Such creativity lies in the very nature of chess. Whether we like it or not, amid the tournament scoreboards, rating points, categories, and norms of our chess world a prominent place is occupied by the aesthetic, artistic and truly creative.

In order to bring our own creativity to ever higher levels, we carefully study opening theory, the middle- and endgame; we examine a countless number of standard positions; we try to learn and memorize as many general principles as possible; we acquaint ourselves with the games of Grandmasters.

Imitation is desirable in acquiring chess knowledge. It is also very natural and ubiquitous in life. But we do not trouble ourselves with all these profitable things, developing our intellect, merely to copy long-established patterns of play and rehearse clichéd examples. What is required of us is creativity! An original approach to recurrent problems, linked with the ability to set new ones. Much space in chess manuals is devoted to matters of a technical nature. A lot is said about isolated pawns, the "hanging center," the domination of the bishop pair, the "good" and "bad" knight, and so forth. The conclusions become generalized. But so little is written about exceptions to the rule, about *paradoxes*.

It is precisely this somewhat neglected topic that is taken up in this section. We are not interested here in the situation where the player repeats and reproduces his previous experience and customary play. In the course of solving standard problems on the board, you make your way along familiar paths, sticking to well-known tried and tested procedures. Here we are not particularly concerned with this kind of imitative thinking, or "reproductive thinking" as psychologists put it.

What attracted us was the situation where a player looks for solutions hidden in "the depths," in which workable options are in fact obscured by standard, entrenched patterns of thought. And the eventual outcome, the correct solution, at first seemed too improbable to be true. Which is why it was hard to foresee.

We searched for the right word to express best this state of affairs: it is *fantasy*. Fantasy in this context means the ability to imagine situations, incidents, whole series of events (let these be moves in a chess game) which are transformations, *enrichments*, of earlier experiences. The picturing to oneself of completely new situations or events. What is vital in fantasy is paradox, the conspicuous presentation of contradictions.

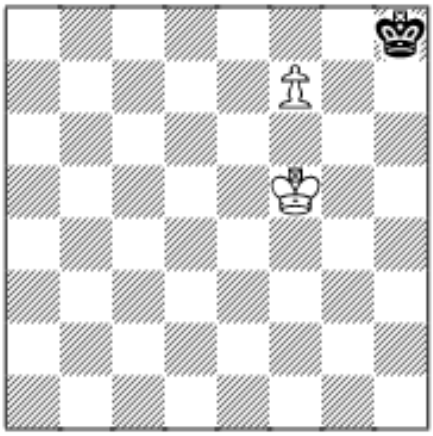
Fantasy is one of the essential conditions for creativity, whether literary, musical, artistic, or on the chessboard. With its help we can attack our fixed dogmas.

When first we encounter signs of chess fantasy, we experience cognitive dissonance. Here we come face to face with something alien to our previous views. In our eyes, basic principles of chess have been undermined. We stand

amazed before the fact that a "short-legged" knight catches a "long-legged" bishop on the long diagonal; that a humble pawn, at a certain moment, proves to be stronger than a queen; and that a king in the opening, instead of hiding himself behind the last rampart, heads victoriously into battle, straight into the fire of the foreign army.

Yet after deeper analysis of each such individual case, we invariably come to the conclusion that what seemed irrational is really rational after all. Moves, strategies, and ideas that according to popular opinion go against principle and common sense, are actually guided by the different – initially imperceptible – demands of chessboard logic. One could say, to paraphrase the American philosopher John Dewey, that where old and familiar things take on the mark of the new, there we encounter fantasy. But when something new occurs, then distant and strange things become obvious and inevitable. And there is always a certain sense of adventure in intellectual contact with the world, and that adventure is what we here call fantasy.

There are opportunities for fantasy, originality, enterprise, artistry, adventure, creativity, ingenuity – call it what you will – or merely something "a bit different," at all stages of a chess game, *if* you are prepared to look for them. That is the case even in the very, very simplest of circumstances.



White could just queen with check, but in place of that there is **1.Kf6! Kh7 2.f8=R Kh6 3.Rh8#**. This is not just being "flashy," it is actually the quickest way to win.

A certain line of the solid, "boring" Caro-Kann Defense was known to theory: **1.e4 c6 2.d4 d5 3.Nd2 dxe4 4.Nxe4 Nd7 5.Ng5 Ngf6 6.Bd3 e6 7.N1f3 Bd6 8.Qe2 h6 9.Ne4 Nxe4 10.Qxe4 Nf6 11.Qh4.** Surely nothing out of the ordinary could happen here, as early as this?

Since 11...0-0? is answered by 12.Bxh6 gxh6 13.Qxh6 followed by g2-g4-g5, Black has to content himself with the mundane 11...Qc7, or 11...Qa5+ 12.Bd2 Qh5. Or so it had been thought. And then in one game Anatoly Karpov came up with **11...Ke7!?**, which threatens …g7-g5 embarrassing the white queen (Kamsky–Karpov, Dortmund, 1993).

Next, a case of what we are stressing throughout – *seek and ye shall find.* Black to move.

At first glance White's kingside formation appears somewhat vulnerable to a piece sacrifice on h3, but we imagine that Adolf Anderssen looked again to find something far stronger. **1...Nxg2!! 2.Kxg2 Qxf3+! 3.Kg1 Nxd4 4.Qe4 b5?** A pity. This also required a second look because it allows 5.Bd5 Qxe4 6.Rxe4 when White would soon be only one pawn down. **5.Bd3? f5 6.Qxd4 Bb7 0-1** (Saalbach–Anderssen, Leipzig, 1858).

To give the encounter with chess fantasy the character of an adventure, we decided on a chapter partly in the form of a test, forcing the reader to grapple with unusual problems.

For whom is that chapter intended? Above all, we hope it will interest a very broad group of self-taught chessplayers. Those more advanced may be bored at first with exercises none too difficult for them. They may not see any signs of fantasy in the solutions. But remember that the exercises were arranged from the easiest to the hardest. What is already obvious to them, the less advanced have the chance to discover only now.

And those less advanced? They should cope well with the initial exercises, but later it will get tougher and tougher. Let them not lose heart! Through it they can determine their present stage of development, and what journey awaits them. In time they will be able to solve ever more exercises. And that can be a yardstick, a confirmation of progress.

We feel confident that this is the chapter for those who would rather not count the squandered points after a tournament, but instead encourage themselves with every brilliant, startling idea realized on the chessboard. Would this be the chapter then, for every fortunate chessplayer? With no losers amongst them? In the world of paradoxes everything is possible.

In the final chapter we propose the basic elements for self-improvement work in chess, incorporating psychological methods applied in sport and elsewhere. The principal directions for chess development will be considered.

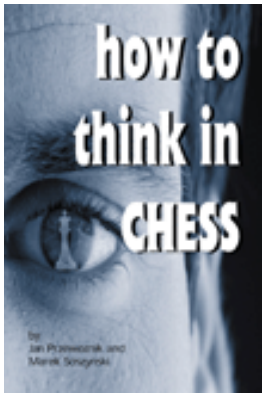
First of all, there will be the skills of setting goals, and of positive thinking. If you want to be a winner, you have to think like one! You have to know where you are heading, and you have to realize, early on, that it is especially important how far you plan on going.

Secondly, not only awareness of the goal itself is important, but also awareness of the road to it. And here questions of character formation, and coping with stress, already arise. One must learn the skills to overcome obstacles, to maintain persistence, to extract satisfaction even from the smallest successes, and to correct one's direction when thrown off course.

Thirdly, on the road to one's goals, belief in oneself, in one's potential, in one's

internal reserves, is of great significance to the chessplayer. The ability to construct a positive self-image is required here.

We hope that this book will make it easier for the chessplayer or his coach to work systematically at raising his own or his student's standard of play, and give him an opportunity to delve into the deeper question, *how do I actually think?*



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