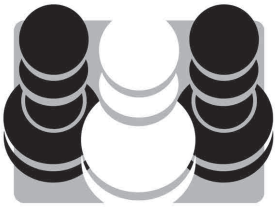
Decision Making in Major Piece Endings

by

Boris Gelfand

with invaluable help from Jacob Aagaard



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Publisher's Foreword

This is the fourth book in the *Decision Making in Chess* series. It was written over the last couple of years. A lot of work has gone into this book and the accompanying volume *Technical Decision Making in Chess*, which deals with a wider range of technical topics, whereas this book focuses on positions without minor pieces.

It has been four years since the publication of *Dynamic Decision Making in Chess* and certainly there will be one person out there wondering what happened to us and why the third volume was taking so long to complete. I hope that the content alone of these two books will answer that question.

Shipov, Rodshtein, Igor Burshtein, Gelfand and Huzman at the 2009 World Cup in Khanty-Mansiysk

As with the previous volumes, we have allowed the material to dictate the format, rather than trying to force it into a preconceived notion of what the book should look like. The other books in this series were unique, but will appear similar to each other when compared with this twin publication.

The number of hours that have gone into analysing the games in these two companion volumes has exceeded even our expectations; and we feel privileged that this is our job. I have never done anything as thoroughly and dedicatedly in my life as I have analysed the positions in this book. I am exhausted and so must Boris be too. We took turns in pushing each other towards perfectionism – and beyond.

I have written a lot of books and now also close to a handful together with Boris. Taste is a personal thing and different people need to read different things at different times. So, I shall moderate my language and simply call this book my favourite.

As always, there are a few people to thank on behalf of Boris and myself. The photographers; especially Amruta Mokal, Maria Emalianova, Vladimir Barsky, Vladimir Jagr, Mark Rabkin, Anastasiya Karlovich and others, who so generously shared their work with us.

Alexander Huzman is the third co-author to some extent, having shared his findings in many positions. (However, he cannot be held responsible for a single word on these pages.) You will find other players' ideas mentioned throughout the book. There are also suggestions from students and friends who are not mentioned, which is an omission by our faulty memories alone. We are indebted to their contribution, even if we are too disorganized and too aged to give credit to all.

Jacob Aagaard
Glasgow, August 2020

Yurmala 1985 – I became the USSR U18 Champion!

Introduction

This is the fourth volume of this series, published at the same time as the third volume, *Technical Decision Making in Chess*. As with the other volumes in this series, this book is not a manual or a theoretical work. There are plenty of those around, by Dvoretsky, Nunn, Averbakh, De la Villa, Mueller and others. I strongly recommend that the readers consult these volumes and choose their own selection of positions and ideas to memorize. Relying on a single source will be risky and although I would recommend all of the books by these authors, none of them eclipses all of the others.

Rather this book is about decision making at the board and learning from your games – and those of others. In this book I will discuss topics that have arisen in some of the most interesting games without minor pieces during my career. We will encounter rook endings, queen endings and games in what Romanovsky called *the fourth phase*, which is essentially late middlegames/ early endings where only major pieces remain.

Some of the lessons will have a certain generality to them and at times I shall refer to generalities most of us have encountered before. I hope the reader shall never mistake my indulging in abstract observations for dogmatism. Chess is a wonderfully complex game and there are many ways to play it. I will explain my way of making decisions and how I approach chess generally.

Kirovabad (Ganja), 1984 USSR Junior Championship

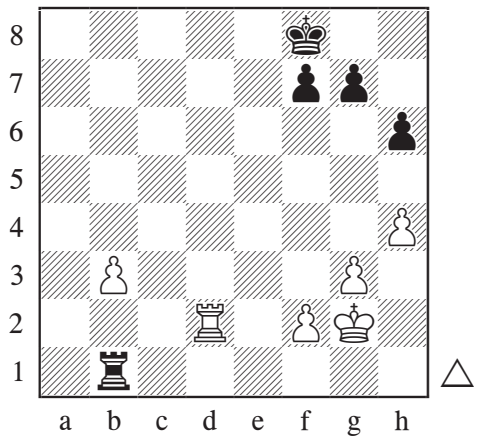
The importance of deep analysis

One of the most important points to this book is its reliance on deep analysis. I have analysed a lot of these games with students in many countries. These can be promising kids, or some of the best grandmasters in the world. Sometimes both at the same time. The conclusions we have been able to make in this book are enhanced by these analyses.

I shall talk more about this in the first chapter of the book, but first let me show you an interesting example I came across just before submitting the book. I suggested to Jacob that we should analyse it. Again, I had the feeling of entering a parallel universe of greater complexity than our own.

Evgeny Tomashevsky – Peter Svidler

Internet 2020



This was a blitz game played in the final of the charity tournament *Play for Russia*. In blitz the players cannot play on basic instinct only. Although the quality of the play in blitz is inherently restricted, the position is not any less interesting.

35.♖d3

We tried to find a way for Black to hold, but it appears none exists.

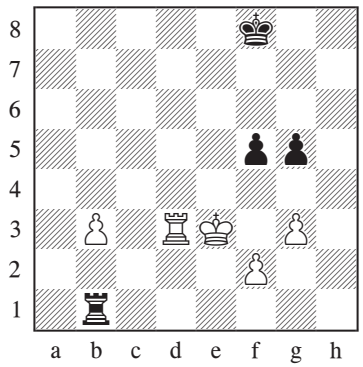
35...♔e7

Black could also have tried active pawn moves.

35...g5 36.hxg5 hxg5 37.♔f3

37.g4? would create a hook in the white pawn structure and make it possible for Black to create counterplay. After 37...♔e7 38.♔f3 ♖b2! 39.♔e3 f5! and ...♔f6, Black will make the draw.

37...f5 38.♔e3



38...♔e7

38...♔f7 Black can also try to activate the king via the flank, but it does not work out. 39.♔d4! (39.f4? is premature. After 39...gxf4† 40.gxf4 ♔g6 41.♔d4 ♔h5 Black is in time to create counterplay and make the draw.) 39...♔g6 (39...♖b2 40.f4 and White wins) 40.♔c4 ♔h5 41.b4 ♖b2 (41...♔g4 42.♖b3 and ♖b2, winning) 42.f3 White wins.

39.f4!?

39.♔d4! leads to an easier win, but the analysis of the text move is more interesting. Compared to the note above, the black king is worse on e7 than on f7.

39...♔f6

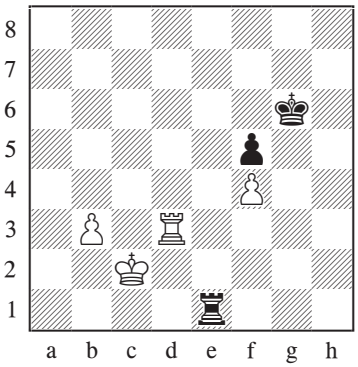
39...gxf4† 40.gxf4 ♔e6 41.♔d2! is very similar.

39...g4 40.♔d2 also does not look like an improvement for Black.

40.♔d2!

This is a key point. The king should not go to d4. White needs this square for the rook.

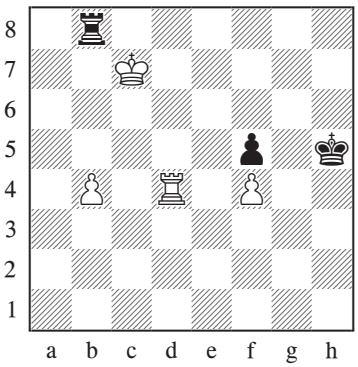
40...gxf4 41.gxf4 ♔g6 42.♔c2 ♖e1



43.♔c3!

The only winning move. The margins really are narrow here. White is trying to advance the b-pawn, while delaying Black's counterplay on the kingside as much as possible.

43.♖d4? ♖e8! 44.b4 ♖b8! and Black is in time to defend from the front, delaying White's progress enough to win the necessary time to bring the black king into the game. 45.♔b3 ♔h5 46.♔c4 ♖c8†! White cannot be allowed to push the pawn forward. 47.♔d5 ♖b8 48.♔c6 ♖c8† 49.♔d7 ♖b8 50.♔c7 Finally White manages to repulse the black rook, but now the white king is far, far away from the action on the other side of the board.



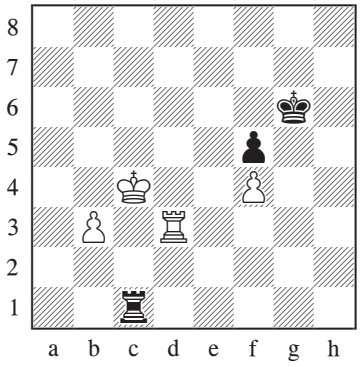
Black draws with: 50...♖e8! 51.b5 ♖e4 52.♖xe4 fxe4 53.b6 e3 54.b7 e2 55.b8=♕ e1=♕ 56.♕b5† ♔g6 There are no winning chances whatsoever in this endgame.

43...♖c1†

43...♖e4 is not a problem now. White has 44.♖d4, which is a tempo up on the variation right above. 44...♖e8 45.b4 ♖b8 46.♖d5! and Black does not have time for ...♔h5.

There is no chance for 43...♔h5 yet. White has 44.♖g3, winning.

44.♔d4 ♖b1 45.♔c4 ♖c1†



46.♔d5

White wins easily. Black has failed to create counterplay.

46...♖b1 47.♖g3†

An annoying check.

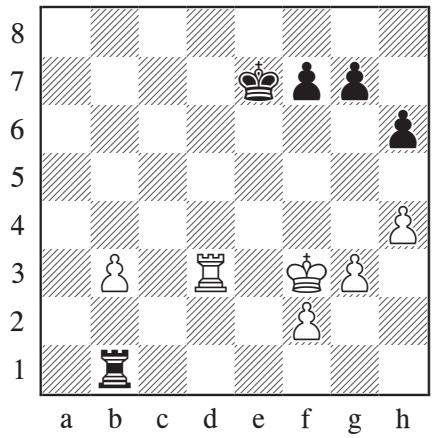
47...♔f6

47...♔h5 48.♖g5† ♔h4 loses to 49.♔c4.

48.♖c3 ♖d1† 49.♔c5

White will win slowly. Compared to the variation after 43.♖d4?, Black cannot get the king round to h5.

36.♔f3



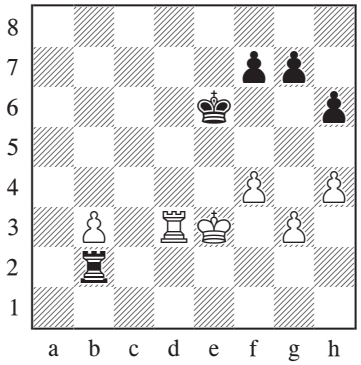
36...♔f6

We also analysed the following variation:

36...♖b2 37.♔e3 ♔e6

37...g5 38.hxg5 hxg5 39.f3 f5 40.♔d4 ♖g2 41.f4 gxf4 42.gxf4 ♔d6 43.b4 ♖e2 44.♔c4† ♔c6 45.b5† ♔c7 46.♔c5 ♖c2† 47.♔d5 ♖e2 48.♖d4 ♔b6 49.♖c4 ♔xb5 50.♖c5† and 51.♔d6, winning.

38.f4!



A strong and instructive move. The rook can defend the g3-pawn, while the f- and h-pawns are poised for exchanges.

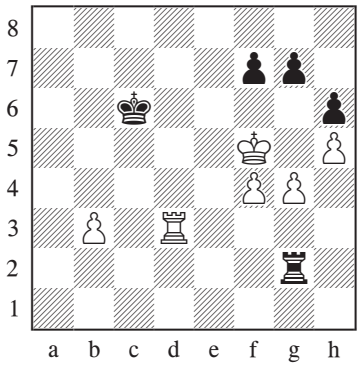
38...♖g2

Black seems to have to play to get his king to the queenside, as it is very difficult to create a passed pawn on the kingside against this white pawn formation.

38...♔f5 39.♔d4 ♔g4 40.♔c3 and there is no counterplay on the kingside.

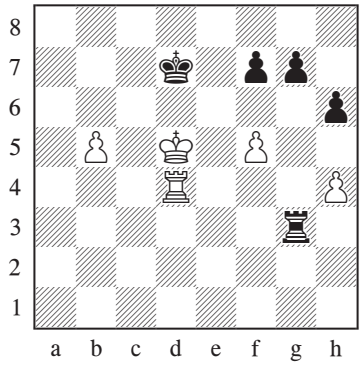
39.♔d4 ♔d6 40.♔e4† ♔e6

40...♔c6 41.♔f5 ♖g1 42.h5! ♖g2 43.g4



White is threatening to invade with ♖d8-g8, as well as g4-g5, forcing Black to exchange on g5. After fxg5 the f7-pawn will be a target and White can seriously consider h5-h6. In some positions, White can also take with the king on g5 with the idea of exchanging another pawn with h5-h6, when the weak f7-pawn is a great liability for Black. 43...g6† Active play also does not work. 44.hxg6 fxg6† 45.♔xg6 ♖xg4† 46.♔f5 ♖h4 47.♔e5 White wins. The h-pawn does not offer real counterplay.

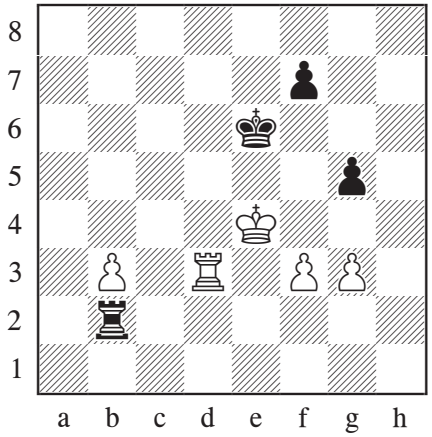
41.f5† ♔e7 42.b4 ♖b2 43.♖d4 ♖g2 44.♔d5 ♖xg3 45.b5 ♔d7



46.♖a4 ♖d3† 47.♔c5 ♖c3† 48.♔b6

White wins.

37.♔f4 g5† 38.hxg5† hxg5† 39.♔e4 ♖b2 40.f3 ♔e6



41.g4

White is simply winning. Black cannot create counterplay; and with weaknesses on the kingside, it is not possible for him to hold with passive defence.

41...f6 42.♖e3 ♖b1

White would also have won easily after 42...♖d2 43.♖d3 cutting off the black king. For example, 43...♖e2† 44.♔d4 ♔d6 45.b4 ♖e1 46.b5 ♖c1 47.♔e4† ♔e6 48.♖b3 with a simple win.

43.♔d4† ♔d6 44.♔c4 ♖c1† 45.♖c3 ♖b1 46.b4 ♔e5 47.♔c5 f5 48.gxf5 ♔xf5 49.b5 ♔e6 50.♔c6
1–0

Understanding this endgame was enlightening to us, and led us to make changes to Chapter 3.

When to play by hand

In chess we rely a lot on our intuition. We have to make a lot of decisions in a limited amount of time when we play. However, there are some moments when we need to go deep – perhaps to calculate a difficult accurate line, or simply find a way to pose the opponent problems before he equalizes completely. Understanding when to make a move "by hand" and when to "go deep" is one of the most important aptitudes to develop. See my discussion of the topic in the game against Edouard on page 257.

Some general principles put on the line

The principle of "don't hurry" became famous from the book *Endgame Strategy* by Mikhail Shereshevsky. It refers to the technique of classical players such as Rubinstein and Capablanca, where they would build up their position slowly, when the opponent would be unable to do anything active. You will see this at play many times throughout this book.

There are other truisms, such as "passed pawns must be pushed", which simply means that in most situations, passed pawns are more valuable when they are further up the board. This is true, except in the cases where there is a concrete reason for this not being the case. You will find both in this book. And then of course there is the question: when you have two passed pawns, which one should you push?

You will find that these generalities are just suggestions, and that strong players may pay attention to some of them, but they will always make decisions based on something concrete.

Take the idea that when you have a material advantage, you should seek to exchange pieces, while the opponent would want to exchange pawns. In my game against Hernandez on page 49, you will see that not all exchanges are alike. The exchange of rooks would seriously endanger the win, while the exchange of bishops eventually decided the game. Chess is too complex to be wrapped into simple slogans; it is also too complex to be played well without some general idea of which direction you should be headed.

Engines

While working on this book, we used engines and tablebases. It is my firm conviction that we should think for ourselves as much as possible. In many areas the computers are stronger than humans, but in other areas human understanding is still ahead.

I always encourage young players who follow games online to do so with the engine turned off. Your brain is not active when you are looking at the engine variations; you will not be able to develop a way to solve problems, which you will certainly need when you are the one sitting at the board.

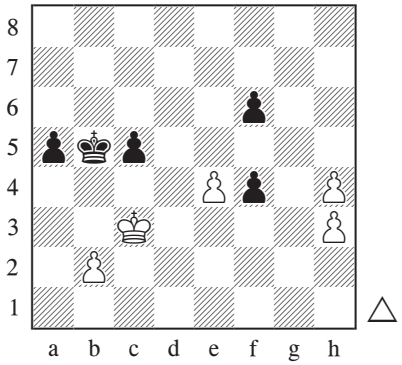
Also, your evaluation of positions will lack an important element if you blindly follow the

computer evaluations. In this series I will often say things such as "everyone would choose White", which refers to situations where the engines cannot tell the two sides apart, but the practicalities favour one player immensely. This is very important when you are preparing openings, but also matters a lot when you are analysing endgames, and trying to understand how chess is best played; which will eventually help mould your intuition.

I encountered a really striking piece of misinformation while working on this series, which can be found on page 92 in *Technical Decision Making in Chess*.

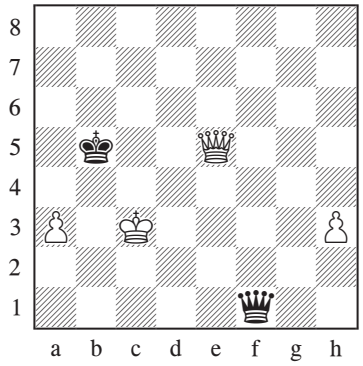
Boris Gelfand – Pentala Harikrishna

Wijk aan Zee (variation) 2014



Stockfish, with the assistance of tablebases, will tell us that 47.h5 leads to a queen ending with a few extra pawns (Black has to give up his f4- and c5-pawns in order to queen the a-pawn) and that 47.b3? f3 48.♔d2 a4 49.bxa4 ♔b4!! wins for Black. All good stuff.

But it will also insist that 47.e5 is the best move, because it exchanges a pair of pawns compared to 47.h5 and thus brings us into the territory of the tablebases.



So, the continuation that gets the highest evaluation from the engine is one that ends with a position which gets the evaluation #103. Mate in 103 moves. With best play. If you had asked me, I would have believed the position to be a draw. In practice it probably is.

Often, when we see computer-inspired annotations without a human fully in control, the annotator recommends a long spectacular variation, rather than simply taking a free piece, which is what anyone would do in a game. We can see clearly who is in the driving seat, but more importantly, we don't learn anything that can help us make better decisions at the board.

The engines are tools. We all know people who have driven for hours in the wrong direction following the GPS. Don't be like that.

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