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The
Instructor Mark Dvoretsky


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## Working on your Mistakes

My books are not set in stone. I am always offering my publishers corrections to all of my errors that have been uncovered; some of which are identified by my readers, for which I am genuinely grateful.

New ideas are generally uncovered during training work with my students, who are, as a rule, rather strong players, to whom I offer particular examples from my books, either for evaluation or for independent solutions. Plus, there are a number of inaccuracies and errors that $I$ have been able to uncover on my own.

Analytical computer programs, such as Fritz, Junior, etc., have now come into common use; there are also endgame tablebases, offering precise evaluations of all positions of five pieces or less - and recently, some six-piece endgames have also been conquered. I have decided to put the games and fragments from my books through at least a cursory computer examination; and as a result, some of them (thankfully, not too many) have been re-evaluated. Herewith, I bring to your attention the most interesting and instructive episodes from my recent examinations.

Let's begin with a simple example out of Dvoretsky's Endgame Manual, showing how to defend against two doubled enemy extra pawns.


With the defender's king in front of the pawns, he can usually draw without too much trouble. The only important point is that you must know how to play the analogous position with a single pawn (the "Philidor position").

Here, Black uses the main defensive method of the Philidor position - shuttling his rook back and forth along the 6th rank, preventing the enemy king from getting there. When his opponent plays d5-d6, then the rook drops down to give checks from the rear - the king no longer has the d6-square to shelter from vertical checks, that being occupied by the pawn.

White has only one try at strengthening his position - occupying the 6th rank with his rook.
1.Rb7 Rg6 (1...Kc8!?) 2.Rb6 Rg4!

On 3.Kc6, Black can now answer 3...Rxd4 4.Rb8+ $\operatorname{Ke7}=$. This technique putting the rook behind the enemy pawn - is in fact the second method of defending Philidor's position, something Philidor himself was unaware of. This method is no less important than the first one - sometimes it is the only way in which the game may be saved, because there are times when the rook is unable to occupy the 6th rank.
3.d6 Rg1! 4.Kc6 Rc1+ 5.Kd5 Rh1 6.Rb8+ Kd7 7.Rb7+ Kd8 8.d7 Rh5+

Black could also have restricted the white king's attacking possibilities by 8...Ke7!

## 9.Kc6 Rh6+ 10.Kc5 Rh5+ 11.d5 Rh6! =

Black returns, once again, to the defensive method suggested by Philidor.

On the whole, everything in the book is correct, except for one detail. I thought that $2 \ldots \mathrm{Rg} 4$ ! was the only saving move, when in fact, it isn't.

$$
\begin{aligned}
& \text { 2...Rg7?! 3.Rb8+! Kc7 4.Ra8 Rg1! (4...Rg6? 5.d6+ Kd7 6.Ra7+ Kd8 7.Kc6 } \\
& \text { loses) 5.Ra7+ Kc8! 6.Kc6 Rc1+ 7.Kd6 }
\end{aligned}
$$


7...Rc4! After 8.Ra8+ Kb7, White has to spend a tempo retreating the rook, when Black can still employ the second line of defense in Philidor's position by putting his rook behind the pawn: 9.Rh8 Rxd4 10.Ke6 Kc7!, etc. But after 7...Rd1? 8.Rc7+! Kd8 9.Rh7 White gets his rook away from the enemy king with tempo, and after 9...Kc8 (or 9...Ke8 10.Rh8+ Kf7 11.Kc6) 10.Rh8+ Kb7 11.Ke6 Rxd4 12.d6 he wins easily.
2...Rg1?! 3.Kc6 Kc8! (3...Rc1+? 4.Kd6)
4.Ra6 Rc1+5.Kd6. Now we have the same position as in the diagram, only with White's rook at a6. Here, Black can't play 5...Rc4?, in view of 6.Rc6+; however, 5...Rd1! 6.Rc6+ (6.Ra8+ Kb7 7.Rh8 Rxd4 8.Ke6 Kc7!) 6...Kd8 prevents White's rook from escaping to the king's wing with tempo. Nor can White make progress after 6.Ra4 Rd2(or d3)!

The following position was examined both in Dvoretsky's Endgame Manual (during the analysis of the Gligoric - Smyslov endgame), and in the earlier book by Dvoretsky and Yusupov, Technique for the Tournament Player.

## M.Dvoretsky, B.Gulko, 1976



The tempting $1 . . . \mathrm{f} 4+$ ? doesn't lead to a win: 2.Kf3 $\mathrm{Rc} 3+3 . \mathrm{Kg} 2 \mathrm{Ke} 4$ 4. Kxh 2 (4. Rh 8 ! is still more exact) 4 ...Rc2+5.Kh3! (5.Kg1? would be mistaken: 5...Ke3 6.Rh8 Rc1+ 7.Kh2 f3 8.Re8+ Kf2 9.Ra8 Kf1) 5...Kf3 6.Rh8 Rc7 7.Rh6 (but not 7.Kh2? Kf2 as Lev Polugaevsky once played in an analogous position against Hans Ree) 7...Re7 8.Rh8 Kf2 9.Ra8! f3 10.Ra2+ Re2 11.Ra1 (or 11.Ra8 Kf1 12.Kg3 f2 13.Kf3! Kg1 14.Rg8+) and draws.

Let's pretend that it's White to move here. He would have to play 1.Rh8 (he can't play 1.Kf3 because of $1 \ldots$ Rc1! 2.Rxh2 Rc3+), when Black's king could move up and around its own rook, so as to approach the h-pawn on the first rank. Note that Black's rook must occupy the c2-square. If it goes to d2 or e2, then the white rook no longer has to leave the 4th rank (now he has the move Kf3!). And with the rook at b2, the king's march to the queenside, past his own rook, becomes too lengthy.

In other words, what we have now on the board is a mutual zugzwang position. So Black must lose a move.
1...Rd2 2.Kf3 Ra2 (2...Rd1? 3.Rxh2 Rd3+ 4.Ke2) 3.Kg3 Rc2!! 4.Rh8 (4.Kf3 Rc1!) 4...Ke4 5.Re8+ Kd3 6.Rd8+ (6.Rh8 Re2! intending 7...Kd2) 6...Kc3 7.Rh8 (7.Rc8+ Kd2 or 7...Kb2) 7...Re2! (after 7...Kb2? 8.Kf4 Kc1 9.Kxf5 Kd1 10.Kg4 the Black king returns too late) 8.Kf4 Kd2 9.Kxf5 Ke1 10.Kg4 Kf1 11. Kg 3 Kg 1 - the king arrives in the nick of time!

As in the preceding example, the main line (which was discovered in 1976!) is completely correct.

Thirty years later, however, while preparing Dvoretsky's Endgame Manual, I uncovered a more stubborn defense. Instead of 7.Rh8, it makes sense to play 7.Rd1!?


I examined a lot of complicated lines, and could not find the win; so in the "Manual," I gave this position as drawn. Now I see that assessment was mistaken.

Sometimes, in order to fight your way out of a thicket of variations, it's important to examine the position logically, in order to find some overall ideas and considerations.

For example, in this position, one useful fact is that Black can win if he gets his king over to the f-pawn while the white rook is tied down to the first rank. Now the only question becomes how this can be achieved.

On 7...Kc4, White replies 8.Ra1 (8.Rf1 Rd2, or 8.Kf4 Rf2+ 9.Kg3 Rd2 are both weaker), with the idea of meeting the enemy king's march to the kingside by returning the rook to the h-file and relying on the first defensive method. For example: 8...Kd5 9.Ra5+ Ke6 (9...Ke4 10.Ra4+ Ke5 11.Rh4) 10.Ra6+ Ke5 11.Rh6 (intending 12.Rh4) 11...Ke4 12.Re6+ Kd3 13.Rd6+ Kc3 14.Rd1! etc.

I took the first two logical steps; but for some reason, I couldn't find the third one. It turns out that, before bringing the king back, it's important to have the rook on d2 first. Then the transfer of White's rook to h6 (as in the variation we just examined) loses its force: Black advances his king again, and White's rook can no longer reach d1.

The most exact line is: 8...Ra2! (not 8...Rd2 at once, because of 9.Ra4+ Kd5?! 10.Rh4 and Black has to start all over again) 9.Rb1 Rd2 10.Kf3 (10.Ra1 Kd5) 10...Kd5 (Ke5-f6-g5 was threatened) 11.Rb5+ Ke6 12.Rb6+ Ke5 13.Rh6 Kd4 14.Rd6+ Kc3 15.Rc6+ Kb2 16.Rh6 Kc1 17.Kf4 Kd1 and Black wins.

In the 1976 USSR Championship, I helped GM Boris Gulko prepare to play out his adjournment against Mark Taimanov; in the course of our analysis, we studied the previous endgame. The course of the adjourned session gave rise to the following curious situation:

## Taimanov - Gulko

Moscow 1976


Our home analysis had established that the natural move 47...f5? led to a draw. For example: $48 . \mathrm{Kf} 1 \mathrm{f} 4$ (48...Rh2 49.Kg1 Rxh4 $50 . \mathrm{Kg} 2 \mathrm{f} 451 . \mathrm{Rd} 3$ ! leads to the usual drawn position with f - and h-pawns, and with a poorly-placed black rook to boot) $49 . \mathrm{Rg} 5+$ Kxh4 (49...Kf3 is not dangerous: $50 . \mathrm{Kg} 1$ Rb1+ 51.Kh2 Kf2 52.Rxh5 f3 53.Ra5 Kf1 54.Kg3 f2 55.Ra2 Rb3+56.Kg4 and White gives up his rook for the f-pawn) 50.Rg7 Kh3 (see next diagram)


An important basic position; Black to move would win: $51 \ldots$ Kh2! $52 . \operatorname{Rg} 8$ (after 52.Rf7 or 52.Rh7, Kg3 decides) 52...h4 53.Rg7 (53.Rg4 h3 54.Rxf4 Kg3 55.Rf8 Rb1+56.Ke2 h2) 53...h3 54.Rg8 f3 (or 54...Rg2 at once).

But it's White to move here, and he has time to occupy the vital g1-square with his king.
51.Kg1! h4 52.Rg8 f3 (threatening 53...Rg2+) 53.Rf8 (only now, when the black king no longer has a shelter on f3, does the rook leave the g-file) $53 . . \mathrm{Kg} 3$ (or 53...Rg2+

So Gulko took the h4-pawn immediately.

## 47...Kxh4! 48.Rd7?

Only now have I added the question mark to White's reply. At the time, we thought that 48.Rf5 Rb7 would not help him.

49.Kf1 (49.Kf2 Kg4 50.Rf6 h4) 49...Kg4 50.Rf2 Rb1+! 51.Kg2 f5. In order to prevent his king being driven back to the first rank, with fatal effect, White's rook must loiter passively on the 2nd rank. Black would win easily by advancing his pawns.

Unfortunately, our analysis had a hole in it. By continuing 49.Ra5! (instead of the losing king move), White could utilize the rook's long-range striking power to save himself, by driving the opposing king off to a poor position: 49...Kg4 50.Ra4+! Kg3 51.Ra3+ Kg2 52.Ra2+ Kg1 53.Ke2! (in a number of variations, Black can now cut off the king in the corner by bringing his rook to the g -file) $53 \ldots \mathrm{Kg} 254 . \mathrm{Ke} 1+$ !

## 48...f6!

Black's idea here is to parry $49 . \operatorname{Rg} 7$ by bringing his own rook to the 5 th: 49...Rb5! 50.Kf2 Rf5+ 51.Ke3 (51.Kg2 Rg5+) 51...Kh3. Afterwards, he simply brings his king and h-pawn forward, and then covers the g-file with his rook, when the enemy king will be too far away from the h-pawn.

After 49.Kf1 Kg4 White's position became hopeless: his king was cut off on the 1 st rank, while his counterpart could not be pinned to the h-file. Black won easily.

The move 48...f5 looked like a mistake to us, because of $49 . \mathrm{Rg} 7 \mathrm{Kh} 3$ 50.Kf1 when White's king reaches g1 (50...Kh2 fails to 51.Rg5).

But here again, we were wrong! Black plays 50...h4!


On $51 . \mathrm{Kg} 1$, Black has the powerful resource 51...Rb4!, which he did not have in the abovecited basic position, since the pawn stood on f 4 there. We already know that $51 . \operatorname{Rg} 8 \mathrm{Kh} 2$ ! is hopeless; while on $51 . \mathrm{Rg} 5 \mathrm{f} 452 . \mathrm{Kg} 1 \mathrm{f} 3$ 52.Rf5 Kg4 decides (the rook is too close to the king, and cannot check).

A fine illustration of how attentively and carefully one must use one's theoretical knowledge: the slightest change in the position, and well-known techniques and evaluations can fall by the wayside.

The following curious endgame, with the same material, occurred during my examination of the game Akopian - Orekhov (Moscow, 1973). The analysis was published in my book School of Chess Excellence I-Endgame Analysis.


It's clear that, at some point, White will have to jettison the h4-pawn in order to queen the other. Black employs the defensive method we call "frontal attack" (or the "butting heads defense"). You may acquaint yourself with the theory of these endgames with the aid of Dvoretsky's Endgame Manual.

No direct winning route for White is evident, as the following variations demonstrate:
A) 47.Rf3 Rxh4 48.Kf2 Kg4! (but not 48...Rd4? 49.Ke3 Rd8 50.d4, or 48...Kg5? 49.Ke3 Rh8 50.d4 - with the pawn on the 4th rank, and the king cut off by at least two files, White normally wins, although there are such exceptions as the g-and b-pawns) 49.Ke3 (White gets nothing either from 49.Rf8 Rh7 50.Ke3 Re7+ 51.Kd2 Rd7, or from 49.d4 Rh8 50.Rf7 Re8! or 50...Rh3!) 49...Rh8 50.Rf4+ (50.Rf1 Re8+ 51.Kd2 Rd8 =) $50 . . \mathrm{Kg} 551 . \mathrm{d} 4$ (White would win if his rook were on f 1 now) $51 . . \mathrm{Re} 8+!$ 52.Re4 Rd8 (threatening 53...Kf6 or 53...Kf5, drawing) 53.Re6! (an important technique: the enemy king is cut off on a rank) 53...Kf5 54.Rc6 (with the king on d3, Black's position would be hopeless; here, however, he finds a defense) $54 . . . \operatorname{Re} 8+$ ! $55 . \mathrm{Kd} 3$ Re6! and the black king gets through via the e-file.
B) 47.Kf3 Rxh4! (47...Kxh4? 48.Re4+) 48.Re8 (48.Re6 Kg5 49.Ke3 Kf5 50.Re8 Rh7 51.d4 Rh3+! 52.Kd2 Kf6) 48...Kg6 49.Ke3 (49.Rf8 Kg7 50.Rf5 Kg6, or 50.Rf4 Rxf4+ 51.Kxf4 Kf6) 49...Kf7 50.Re5 (50.Re4 Rxe4+!) 50...Kf6 51.d4 Rh8 52.Ke4 Ra8 and again it's a draw.
C) 47.Kf2 Kxh4! (47...Rxh4? 48.Rg3) 48.Re4+ (48.Rf3 Kg4 or 48...Rd8 49.Ke3 Kg4) 48...Rxe4 49.de Kg5 50.Ke3 Kf6 51.Kd4 Ke6.

Grandmaster Alexander Beliavsky found a paradoxical solution: it turns out that
this is a mutual zugzwang position, which in turn means that White must lose a move.

## 47.Re5+!! Kg6 48.Re6+ Kh5 49.Re3

Now what's Black to do? He can't play 49...Rxh4 50.Re5+; 49...Kg6 is bad too: 50.Rf3 Kh5 51.Kf2, followed by Ke3 and d4. And 49...Rg4+ 50.Kf2 Rxh4 is also hopeless: 51.Rg3! (cutting off the king on a file that is far too distant from the pawn), or 50...Kxh4 51.Re5! (cutting him off on the rank).

## 49...Rd8 50.Kf4! Rf8+

If $50 \ldots$ Kxh4 51.Re6! (mate is threatened) $51 \ldots \mathrm{Rd} 4+52 . \mathrm{Ke} 3 \mathrm{Rd} 853 . \mathrm{d} 4 \mathrm{Kg} 5$ 54.Ke4.

## 51.Ke5 Re8+

51...Kxh4 52.d4 Re8+ 53.Kf4 Rf8+ 54.Ke4 Re8+ (54...Kg5 55.Rg3+) 55.Kd3 Rd8 56.Rf3 or 56.Re5.

## 52.Kd4 Rd8+ 53.Kc3 Rc8+ 54.Kd2 Kxh4



## 55.Re5!

John Nunn showed that 55.d4?, which at first sight appears equivalent, actually costs the win: $55 \ldots \mathrm{Kg} 5$ ! 56.Kd3 Kf6! 57.d5 Kf7 58.Kd4 Re8 when Black's king gets through across the e-file. Or 56.Rf3 (which looks fine at first: with the pawn on d4, Black's king is cut off two files away) 56...Ra8! 57.Rf7 (57.Kd3 Ra3+ 58.Ke4 Rxf3) 57...Ra3! separating White's king from his pawn.
55...Kg4 56.Ke3! (the most exact) and White wins easily.

The analysis looks quite convincing, and yet the starting position is a draw! Black is not obliged to return his king to h5.

## 47.Re5+!! Kg6 48.Re6+ Kf7!

48...Kf5! is equivalent: 49.Re3 Kf6! (but not 49...Rg4+ 50.Kh3 Rg1 51.Rf3+ Ke5 52.h5).

## 49.Re3 Kf6!

$49 \ldots \mathrm{Kg} 7$ ! is also possible. But after 49...Kg6? 50.Rf3 Black is in zugzwang and must lose: 50...Kh5 51.Kf2 etc.


As paradoxical as it seems, this is another mutual zugzwang position, which Black has reached with his opponent to move.

## 51.Kf2 Rxh4 52.Ke3 Ra4 (or b4)!

52...Rh7? would be a mistake: 53.Ke4 Re7+ 54.Kd5 Rd7+ 55.Kc5. White wins because his pawn is protected by the rook.
53.Rf1

There is no other way to make progress: on 53.d4 Black trades off the rooks. And moving the king to the queenside doesn't help either: 53.Kd2 Ra3 54. Kc 2 Kg 5 55.Kb2 Ra8 56.d4 Ra4!

## 53...Ra7 (or b7)! 54.d4

54.Ke4 Re7+ 55.Kd5 Rd7+ and the king has to retreat: the pawn is undefended.

## 54...Rf7!

Here's why the black king had to be on the g6-square! The pawn endgame is drawn, and otherwise, the black king can approach the pawn.

My last example was created as I worked on one of the variations of the endgame Dvoretsky - Filipowicz (Polanica Zdroj, 1953), from the same book, School of Chess Excellence I - Endgame Analysis.
M.Dvoretsky, 2004


This is a rather difficult exercise: try to find the winning plan with White to move.

The primary consideration is how to ward off the threat to take the pawn: $1 \ldots \mathrm{Kxg} 52 . \mathrm{Rg} 2+$ Kf4, and 3.Kf6 fails against 3...Rxe5 4.Rf2+ $\mathrm{Ke} 3(\mathrm{~g} 3)$. This makes the accurate first move understandable.

## 1.Rd1!!

Now 1...Kxg5 would be bad, owing to 2.Rg1+ Kf4 3.Kf6. And 1...Ra6+ 2.Ke7 Kf5 (2...Kxg5 3.e6) loses quickly to 3.Re1! Ra7+4.Kf8 Ra8+5.Kg7 when the king reaches the g-pawn.

## 1...Ra7!?

Black keeps the enemy king away from e7, hoping for 2.Kd6? Kxg5 3.e6 Kf6 4.Rf1+Kg7, or 2.Rd8? (2.Rd7? leads to the same thing) $2 . . . \mathrm{Ra}+3 . \mathrm{Ke} 7$ (on 3.Rd6 Black has the saving 3...Ra8!) 3...Kxg5 4.e6 Kg6! (but not 4...Kf5? 5.Rd6! Ra7+ 6.Kf8) 5.Rd6 (5.Rd1 Ra7+; 5.Rg8+ Kf5) 5...Ra8! with a well-known book draw.

## 2.Re1!!

The only way! White frees his king from the need to defend the pawn, while also ratcheting up the threat to advance it.

## 2...Ra6+ 3.Kd5

Or 3.Ke7 Ra7+4.Kd6 when the king uses the 6th rank to reach the c5-square.

## 3...Ra5+ 4.Kd6 Ra6+ 5.Kc5 Kf7

Thanks to the rook's position at e1, 5...Ra5+ is useless to Black; nor can he play 5...Kxg5 6.e6 Ra8 7.e7. If 5...Kf5 then 6.Kd5 Ra5+ 7.Kd6 Ra6+ 8.Ke7 Ra7+ 9.Kf8 Ra8+ 10.Kg7 decides.

## 6.Rf1+! Kg7

Black can't go back to g6, because of 7.Rf6+ - this is why White needed to entice Black's rook to the 6th rank. And on 6...Ke7 7.Kd5 Ra2 8.g6 (8.Ke4 also wins easily) 8...Rg2 9.Rf6 wins.

## 7.Rd1!

On 7...Kf7 White replies 8.Rd7+ when Black can't go to the 6th rank because of 9.Rd6+. On 7...Kf8 the simplest win is 8.Rd7 Rg6 9.Ra7 Rxg5 10.Kd6.
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